Drexel University
Office of Research and Graduate Studies
Thesis Approval Form
(For Masters and Doctoral Students)

Hagerty Library will bond a copy of this form with each copy of your thesis/dissertation.

This thesis, entitled Acculturation and nonverbal interaction patterns in the relationship between parents and their young adult children in Chinese-American immigrant families: An observational case study.

and authored by Shiau-Ling Duh, is hereby accepted and approved.

Signatures:

Chairman, Examining Committee: Shari Goodwin PhD

Supervising Professor:

Committee Members:

Patricia Wilson, PsyD, ADTR

ATR-BC, LPC

Program Advisor:

Department Head: Shari Goodwin PhD

This document is available at http://www.research.drexel.edu/graduate/forms/phd.asp

Acculturation and nonverbal interaction patterns in the relationship between parents and their young adult children in Chinese-American immigrant families: An observational case study

A Thesis

Submitted to the Faculty

of

Drexel University

College of Nursing and Health Professions

by

Sheau-Ling Duh

in partial fulfillment for the degree

of

Master of Arts

Dance/Movement Therapy

Hahnemann Creative Arts in Therapy Program

August 2008

Dedication

I would like to dedicate this thesis to my whole family, but especially to my father who passed away in August during my first year as a student at Drexel University.

Originally I came to study in the U.S. to fulfill my father's "American dream". He wished for his children to have great academic success in America. My brother came to the U.S., but he didn't get his degree and had to return to Taiwan due to financial difficulties.

Now that I have completed my master’s degree, I would like to thank my father for his values and for his love for me. He is in heaven, and even though he can't be present, I believe that he knows and that he is proud of me for fulfilling his wish. I also want to thank my family for their unwavering support during these past three years. It helped me to keep going on when the path was most difficult.

Thank you, my beloved father in heaven!!

Acknowledgements

I would like to acknowledge the numerous contributors that have helped me write this thesis. Firstly, I am grateful to my thesis committee for their profound knowledge, patient guidance, and unending support. To Dr. Sherry Goodill, my thesis advisor, thank you for your mindful and understanding supervision by leading my hands to walk through each step. To Yan Huo, thanks for your assistance and support during the study process. To Trish Miron, thank you for your insightful suggestions.

I would like to thank my NVFAS raters, Dianne Dulicai and Warin Tepayayone, for your unconditional support and for sparing time from the beginning of the study to the end. Thank you to pastor Rev. Leslie Leung and assistant pastor Laurence Tom of the Chinese Christian Church and Center, for their agreement and also their spiritual support in recruiting families.

Additionally, thank you to all the faculties of the dance/movement program for their constant caring and encouragement. Thank you to my dearest classmate and housemate Pei-Yu, as well as my friend Aracelis Agosto for their companionships and friendships along the path of this research study.

To all my family members, thank you for your long distance and unending love, and for supporting me to complete this work. To all my friends here, thanks for your dancing, chatting and getting together, providing entertainment for my needs and celebrating my dream coming true.

Table of Contents

LIST OF TABLE

LIST OF FIGURE

ABSTARCT

Acculturation and nonverbal interaction patterns in the relationship between parents and their young adult children in Chinese-American immigrant families: An observational case study

Sheau-Ling Duh, MS. RN.

Sharon Goodill, Ph.D., ADTR, NCC, LPC

Two Chinese-American families, Family J and Family K, both with young adult children, were studied in this mixed method collective case study. This study focuses on the nonverbal interactions between parents and their adult children in Chinese-American immigrant families. The specific purpose of this study is to derive a holistic description of the family's functioning through systematic observation of the nonverbal interaction patterns, using the Nonverbal Assessment of Family Systems (NVAFS), and the family members' responses to the self-report questionnaire: Family Adaptability and Cohesion Evaluation Scale IV (FACES IV). Observational data from the NVFAS and the self-report questionnaire FACES IV were considered in relation to parents' and adult children's levels of acculturation as measured by the General Ethnicity Questionnaires, available in Chinese (GEQC) and American (GEQA) versions. The research question: What is the relationship between levels of acculturation, intergenerational family functioning, and nonverbal communication patterns in Chinese-American families?

The paired *t*-Test examined the differences between individuals' GEQC and GEQA scores, as well as compared GEQC and GEQA scores of father and son in the two different families. The scores of *special cultural domains* were also tested. The Pearson *r* correlation coefficient examined the relationships between individuals' scores in GEQC and GEQA. The result of FACES IV was scored and plotted using an Excel Spreadsheet provided by the test developers. The NVFAS data yielded nonverbal interaction patterns, as well as the frequencies and movement parameters for each family member. The student researcher also employed Kestenberg Movement Profile-based observations to track those components of each member's movement qualities as well.

Findings from the GEQC and GEQA suggested that (a) the cultural orientation of being Chinese and of being American in each individual family member was different, which based on the *special cultural domains*; (b) the sons were more oriented to American culture than were their fathers; and (c) being a Chinese and being an American were significantly negatively correlated for Father J and Son K, but were significantly positively correlated for Father K.

Findings from the FACES IV showed that (a) the *Family Communication* scores showed a greater gap between the fathers and the sons, (b) the perception of the family type was different between the fathers and the sons, (c) the *Unbalanced Rigid* scores showed an obvious gap between the father and the son in Family J, and (d) the

Family Satisfaction scores showed an obvious gap between the father and the son in Family K.

Findings from NVFAS and other observational data showed that in Family J (a) the father's movement frequency was 3.16 times greater than his son, (b) the father's movement qualities were predominantly indulging in nature and the son's predominantly fighting, and (c) there was very little reciprocity and little eye contact exhibited in their conversation. Findings in Family K revealed that (a) the father preferred to make hand gestures, the son exhibited hand gestures and postural shifts, (b) the father's movement qualities were predominantly fighting in nature and the son's predominantly Indulging, and (c) frequent instances of reciprocity and eye contact were exhibited in their conversation.

The acculturation gap and the incongruent aspects of relationship between the fathers and the sons were revealed not only in the FACES IV, but also in certain nonverbal interaction patterns, which the FACES IV could not detect and /or which conflicted with the FACES IV results. It is suggested that the study be replicated with a larger sample and with full family systems including female family members, and that these findings be considered in relation to clinical work with immigrant families.

CHAPTER I: INTRODUCTION

This study is a collective case study, designed to assess acculturation differences in relation to the nonverbal interaction patterns between parents and their young adult children in Chinese-American immigrant families, using the Nonverbal Assessment of Family Systems (NVAFS) as one assessment of the family members' relationships. Basic information about the family was collected using a demographic questionnaire. Acculturation was assessed using the self-report General Ethnicity Questionnaires, available in Chinese (GEQC) and American (GEQA) versions; Family functioning was assessed with both the self-report Family Adaptability and Cohesion Evaluation Scale IV (FACES IV) (Franklin, Streeter, & Springer, 2001; Olson, Gorall, & Tiesel, 2006) and the nonverbal communication with the NVFAS. NVAFS analysis focused on intergenerational nonverbal exchanges as well as whole system patterns; intergenerational dynamics were ascertained by comparing FACES IV and GEQC and GEQA responses from the young adult participants with the same from their parents.

According to the U.S. Census reports, between the years of 1990-2000, Asian Americans were the fastest-growing racial group in the United States, and the Asian

population increased from 3.88% to 4.3% from 2000 to 2005 (U.S. Census, 2005). Therefore, it is important to accurately understand how acculturation shapes and impacts the health and functioning of immigrant families.

Acculturation is defined as “the process of adjusting to a different culture without conscious endorsement” (Tsai, Chentsova-Dutton, & Wong, 2002). According to the findings of Berry’s study (2003), the demands of adapting to various types of cultural differences among immigrant families can lead to increased stress, called *acculturative stress.* It may persist for many years after immigrant families moved to a new country.

The different rate of acculturation between parents and their children, known as the acculturation gap, has been hypothesized to increase problems in parent-child relationships and is likely to create family conflicts (Fang & Wark, 1998). It also produces great distress in families. In addition, an inability to resolve these differences through verbal communication skills accounts for greater family disruption and negatively influences family cohesion (Tseng & Fuligni, 2000).

It is also reported that family conflict was the strongest predictor of help seeking for medical services (Abe-Kim, Takeuchi, & Hwang, 2002), and intergenerational family conflict impacted and influenced immigrant families with regards to both physical and mental health status. These have been revealed to be

associated with negative mental health consequences for both parents and children (Lee, Choe, Kim, & Ngo, 2000; Ying, 1999).

Thus, it is necessary to help families adapt and acculturate together in order to prevent family conflict and other psychosocial problems. Moreover, from the perspective of cultural values, a harmonious intergenerational relationship, regardless of an acculturation gap, is highly valued in Chinese-American families.

To date, most of the research has emphasized the importance of establishing the relationship between acculturative impact on intergenerational family functioning and mental health in immigrant family (Lee & Liu, 2001; Lee, Su, & Yoshida, 2005). Research has also focused on developing assessments of acculturative family conflict between two generations in Chinese-American immigrant families (Ying, Lee, & Tsai, 2004).

There are currently no published assessments of nonverbal behavior specifically created for assessing intergenerational acculturation differences in immigrant families. Because nonverbal behavior comprises a large percentage of interpersonal communication, an assessment of nonverbal communication is necessary to completely illustrate Chinese-American family behavior patterns.

The need for this research is evident. Dulicai's original assessment (1977) of family movement dynamics, the Nonverbal Assessment of Family Systems (NVAFS)

was employed in this study. The NVFAS has been used with multiple cultural groups and is adaptable for use in many cultural contexts (Barckhausen, 1986; Sbiglio, 1999). Additionally, the self-report questionnaire used in this study FACES IV (Franklin, et al.; Olson, et al., 2006) is not able to capture nonverbal communication data, but provided the perception of each family member about the family communication and other significant family functioning components.

The outcome of this study demonstrates that nonverbal assessment can enhance the awareness of the intergenerational acculturation differences and provides insight into how nonverbal patterns play a role in intergenerational interaction and family function.

CHAPTER II: LITERATURE REVIEW

Asian American culture

Culture

The term *culture* was originally used in the late 18th century. The modern anthropological concept of culture was developed later and the commonly used definition is: “Culture consists of patterns, explicit and implicit; the essential core of culture consists of traditional ideas and their attached values” (Tseng, 2001, p. 5). Another cultural anthropologist Kottak described specific characteristics of culture: “it is learned through a process of enculturation since childhood; it is transmitted through symbols, both verbal and nonverbal; and it is shared by members of groups” (Tseng, 2001, p. 5).

Various definitions of culture reflect different theories for understanding and evaluating human activity. It is suggested that there are six major classes of definitions of culture that can be found in the anthropological literature. The anthropologist Tylor was the first to use the term *culture*, defining *culture* as “ that complex whole which includes knowledge, belief, art, law, morals, custom and any other capabilities and habits acquired by man as a member of society” (Berry, Poortinga, Segall, & Dasen, 1992, p. 165). The psychological definition of culture emphasizes “a variety of psychological features, including notions, such as adjustment,

problem solving, learning, and habits" (Berry, et al., 1992, p. 166). In a general sense, culture is a commonly preferred learned form of behavior which has been adopted by a given society.

Culture consists of integrated and patterned systems of customs and beliefs, and refers to certain behavior patterns and value systems. Furthermore, it is an abstract concept and it is relatively complex to define and delineate its continuity. It is transmitted from generation to generation and does not entirely maintain a static nature.

Culture also changes dynamically through the generations in response to environmental demands. For instance, immigrants of first and second generations may have rather different culture systems or they may be acculturated by different cultural features within their environment or a multicultural society.

Chinese culture

Chinese culture and religion, Buddhist and Taoist philosophies as well as Confucianism, strongly influence the family and social values of Asian Americans (Tseng & Wu, 1985).

Buddhism. Buddhism is one of the Asian religions founded in India about 2,500 years ago. It has since spread through China, Korea, Japan, and other Southeast Asian countries. Buddhists believe that human life is full of sorrows and it proceeds through

stages of birth, age, sickness and death. Suffering is believed to come through the chains of causation in one's life cycle due to either the family's deeds or one's own *karma*. For freeing oneself from this suffering causative cycle, "one needs to follow Buddha's Four Noble Truths, which are as follows: to do good deeds, to give up desires and greed, to give up ambitions, and to give up high expectations" (Du, 2006, p. 83). Asian Americans who practice Buddhism may consider the suffering in immigrant status caused by one's own misdeeds in the past, by too much desire, or by the needs and wills of dead ancestors.

Regarding intergenerational conflict in the Chinese-American family, some may consider it as punishments of wrongdoing in the past, thus becoming a stigma of bad *karma*. For acculturative stress, they may accept it in a fatalistic manner and passively do nothing to alleviate that stress. Traditional parents following Buddha's teaching may influence or discipline their westernized children to cultivate good deeds in order to lower or suppress individual desires and higher ambitions.

Taoism (the Way). Taoism, a spiritual philosophy taught, practiced and influenced in China, is the way to achieve a peaceful, pleased, unending life in harmony with nature. According to Taoism, the *Yin-Yang* theory is that the human body is a microcosm of the universe governed by the balance of *Yin* and *Yang* principle forces, and is also the foundation of traditional medicine. *Yin* is the female energy presenting softness, darkness, and coldness; *Yang* is the male energy presenting strength, lightness, and heat (Du, 2006).

Traditional Chinese treatments apply herbal medicine, food ingredients, or acupuncture to preserve, or restore the balance of *Yin* and *Yang* within the body. A guideline in traditional Chinese medicine (The Yellow Emperor's Classic of Internal Medicine, as cited in Bond, 1993) also mentions *Yin* and *Yang*: "*Yin* and *Yang* should be respected to an equal extent" (p. 254).

Under Taoist influences, the acculturative stresses may be treated as a *Yin* and *Yang* imbalance in individuals. Suffering from distress may affect the *Yin* and *Yang* balance and cause somatization syndromes during the acculturative process among Chinese-Americans.

Somatization is defined as "the substitution of somatic preoccupation for dysphonic affect in the form of complaints of physical symptoms and even illness" (Mak & Zane, 2004, p. 967). Many Chinese Americans complain to physicians about their somatic symptoms rather than considering their depressed mood as a symptom (Yeung, Chang, Gresham, Nierenber & Fava, 2004). For example, the experience of depression among Chinese people is physical rather psychological; they do not report feeling sad, but rather express discomfort, feelings of inner pressure, and symptoms of pain, dizziness, and fatigue (Kleinman, 2004). Similarly, Wen (1998) describes that a somatization symptom, such as headache, muscle soreness, lower back pain, and dizziness is treated as an illness behavior rather than a psychological problem (Mak &

Zane, 2004).

Confucianism. The Confucian value system has deeply influenced the Chinese, as well as the Koreans, Japanese and Vietnamese. Confucianism originated from the philosopher Confucius (551-479 B.C.) in China. It is concerned with the nature of humanity, and is primarily a secular social theory of achieving harmony, the most treasured social value (Hsiao, Klimidis, Minas, & Tan, 2006). Confucius illustrated the possibility of a harmonious society: “If every individual were to act towards others in a proper way, then the orderly world would be achieved. The proper way is dictated by *li* (propriety), a set of rules for action” (King & Bond, 1982, p. 30).

By Confucian definition, a man is not only an individual, but a social, interactive, and relational being that is sensitive to his relations with others, who are above, or on equal footing with him. Man achieves his humanism through interaction with other particular individuals. Confucius specifically emphasized respect for authority (in hierarchy), filial piety, propriety, benevolence, and righteousness, as well as harmony in the family. Consequently, the harmony should be extended to the community, and then spread throughout the nation.

Harmony. Asian cultures are very diverse, however, they share the common discipline that individuals should be modest, humble and polite, and one should put the needs of her family and community first. Traditionally, Chinese cultures are

characterized by strong family and community bonds that are based upon interdependence (Chen, 1998; Hsiao, et al., 2006). Under the influence of Confucianism, the Chinese family is considered the backbone of society and this is one of the major cultural values.

The Confucian paradigm infuses Chinese culture and discourages personal pursuit at the expense of the family's well-being. It stresses the Chinese value system as the basic principle for interpersonal relationships: "Heaven time is less valuable than earth benefit; earth benefit is less important than human harmony" (Heqin, 2005, p. 131). It is said, "Differences, but harmony" (Heqin, 2005, p. 131).

A harmonious intergenerational relationship is highly valued in Chinese families. Family harmony is maintained by care and intimacy among the Chinese, whose marvelous characteristics are warm and mutual love (King & Bond, 1985). Family harmony itself also becomes a goal and the standard for all interpersonal behaviors.

According to the social and cultural context, a harmonious relationship with others significantly determines Chinese people's well-being (Hsiao, et al., 2006). All social relationships are thus modeled after family relationships to achieve harmony among individuals, family and society (Fang & Wark, 1998).

Hierarchy. Family members are regarded in a hierarchical order by sex and

by their generational and chronological age. Members strongly respect this order, which forms the foundation of authority in the family. These rules of conformity structure family relations into hierarchical dualities: father-son, older brother-younger brother, husband-wife, uncle-nephew, and so on, in order to achieve the family harmony. For example, the Father is given absolute authority over the son, which is reinforced as *xiao*, filial piety, in Confucian virtue (King & Bond, 1982).

Above all, the elder (grandfather, father, or oldest son) is the one who assumes responsibility as a protector, wage earner, and decision-maker of the traditional Chinese family.

Filial piety. Filial piety requires children to behave with absolute obedience and selfless devotion toward their parents (*xiao)*. Such a sense of highly developed obligation is deeply ingrained into Chinese culture and has served as the moral foundation of all interpersonal relationships in families (Lin & Liu, 1993). Extending the parent-child relationships, this assumed obligatory reciprocity presides over the following relationships between teacher and pupil, government officials and citizens, and employer and employee (Fang & Wark, 1998). For example, the Five Cardinal Relations (*Wu Lun*) are the basic dyads: (a) sovereign and subject, (b) father and son, (c) elder and younger brother, (d) husband and wife, and (e) friend and friend (Heqin, 2005). Among these five relationships, three belong to the family. This stresses the

importance of family relationships in the Chinese culture.

The strong value of the reverence for elders takes place in traditional Chinese families. Moreover, the elderly are respected for their lifelong contributions to the family, and revered for their life experiences in the community. In contrast, in the American value system, the elderly are associated with conservatism and non-creativity, and they are not usually respected. This is because Americans value individualism, autonomy, assertiveness, and open communication. Therefore, family problems may arise if there are conflicts about racial and cultural values about reverence between two generations (Du, 2006).

Ethical values. Hwang (2001) illustrated the Confucian ethical system in terms of benevolence–righteousness–propriety.

> Proper assessment of the intimacy/distance of the relationship corresponds to benevolence (*ren*), choosing an appropriate rule for exchange according to closeness of the relationship corresponds to righteousness (*yi*) and acting properly after evaluating the loss and gain of exchange corresponds to propriety (*li*). (p. 189)

Confucius integrated these three concepts and further transformed the external ritual of propriety into a cultural psychological structure. He defined *benevolence* as ‘loving *all* men’. Mencius maintained that to practice the virtue of

benevolence: one should start with service to one's parents. Hwang (2001) stated that:

> There has never been a benevolent person who neglected his parents.
>
> Of services, which is the greatest? The service of parents is the greatest.
>
> There are many services, but the service of parents is the root of all others. (p. 190)

"A youth, when at home, should be filial, and abroad, respectful to his elders" (Hwang, 2001, p. 191). After fulfilling the duty of serving their parents (*xiao)*, people can then practice the virtue of benevolence to others in intimacy. Filial piety is defined as the root of all benevolent actions in Confucian's perception. People should practice filial piety by servicing their parents, and subsequently heed other benevolent actions.

Parenting. The parent-child relationship is a dominant relationship in most traditional Chinese families. Presently, such cultural norms mentioned above may not be as strong in traditional Chinese society, and yet this Confucianism influence on the orientation of family values is still very important among some Chinese-Americans (Hong, 1989). For instance, the parents still have significant influence on children's academic, career, and even mate selections (Fang & Wark, 1998).

In Chun and Akutsu's (2003) investigation, it is noted that Asian immigrant parents may insist on and uphold a traditional family value system in a new cultural

environment. Immigrant parents are authoritarian in parenting practices; they emphasize the importance of filial obligations, obedience to parental authority, respect to elders and compliance to a hierarchical family structure. This is done in order to restrict their children's behaviors by involving themselves in their children's lives. However, children still explore and adapt to a more individualistic orientation in the American society. Such acculturation is a major stressor experienced by members of Chinese-American immigrant families.

From another perspective, Taiwanese American parents exert more parental control than do European American parents (Lin & Fu, 1990). Immigrant parents of South Asian Indians may attempt to control their children by intervening in their life activities and decisions because their children may experience cultural contamination (Segal, 1991). On the other hand, parental control does not always produce parent-child conflict. It is reported in Ying' s study (1999a), for instance, that Chinese-American immigrant parents who perceive themselves as effective responsible caretakers have more positive relationships with their children.

Furthermore, it is important to note that measuring the acculturation of college students in the way of isolation from other social context, such as the family, may not tell the whole story of acculturative stresses and the mental health problems among Asian immigrants. Organista, Organista and Kurasaki (2003) emphasized the

need to study the relationship between acculturation and mental health within the social contexts of family and society rather than within the individual isolation status.

Emotional expression and health concept in Chinese culture. Bond's (1993) empirical work and theoretical speculation broadly described the conceptualization of Chinese culture as a collectivist and hierarchical culture; individuals' conceptualizations and beliefs about emotions are also compatible with its characterization. A guideline in traditional Chinese medicine also concerns the emotions:

> The emotions of joy and anger are injurious to the spirit; cold and heat are injurious to the body. When joy and anger are without moderation, then cold and heat exceed all measure, and life is no longer secure. Yin and Yang should be respected to an equal extent (The Yellow Emperor's Classic of Internal Medicine, as cited in Bond, 1993, p. 254).

To prevent disease is to give the internal balance and to act in the way of moderation through "correcting the mind and training the temperament", which is emphasized in Confucianism in traditional Chinese culture (Bond, 1993, p. 255).

Regarding the relationship between emotions and health, the traditional Chinese conception of disease identifies both internal and external origins of malfunction:

> The six evils of wind, cold, heat, wetness, dryness and fire are external causes; the seven Chinese emotions of joy, anger, worry, contemplation, sorrow, apprehension, and fright, as well as fatigue and irregularity of food and drink are external causes. Illness arises when these factors, acting alone or in concert, disrupt the seismographic balance of physiological functions." (Bond, 1993, P. 254)

For example, as Wu (1982) has summarized, "anger is injurious to the liver, but sympathy (sorrow) counteracts anger…", "extravagant grief (sorrow) is injurious to the lung, but joy counteracts grief" (as cited in Bond, 1993, p. 254).

The healing process for Chinese people. To treat these above "emotional diseases" is to apply the principle of balance by increasing positive force for the negative, and the negative force for the positive. Conceptually, this principle is all about the balance of Yin and Yang which is mentioned earlier. In order to rebalance the patient's internal system, a Chinese physician's responsibility is to point out the emotional imbalance in order to dispense the healing process through his or her authority and influence. Generally, it is a required endeavor and determination of the patient to follow the regimen given. The patient's responsibilities consist of understanding the medical doctor's strategy and the awareness of one's internal imbalance system in order to enable this healing process. In this regard, Chinese

Americans may consult an herbalist or medical doctor for their physical or somatization symptoms instead of seeking help from a psychotherapist or psychiatrist.

Asian American culture

Asian Americans include a variety of people whose ancestries originate from countries in the West, South, Southeast, and East Asia with broadly different cultures and histories. These include the Chinese- American, Japanese American, Filipino American, and Korean American groups. The 2000 U.S. Census recorded 11.9 million people, 4.2% of the U.S. population, who reported themselves as having either full or partial Asian heritage. The largest ethnic subgroups among them were Chinese (2.7 million), followed by Filipinos, Asian Indians, Vietnamese, Koreans, Japanese, Cambodians, Pakistanis, Laotians, Hmong, and Thais (Barnes & Bennett, 2002).

Specifically among Chinese-Americans, there are subgroups differentiated from their origins in China or their speaking dialects. For example, the major Chinese groups are the Cantonese, Fukienese, Hakkanese, Shanghainese, and Taiwanese. Most of them also speak Mandarin, which is the official national language, in addition to their regional dialects (Du, 2006).

According to the different political and economic conditions in their original home countries, and/or the different times of arrival in the United States, Asian immigrants have formed their unique experiences and lifestyles to become

accustomed to the dominant society in the United States. However, Chinese-Americans distinguish themselves from other Asian Americans by their own history of immigration, by their different socioeconomic and generational statuses, and by their degree of acculturation and language proficiency needed to adjust their cultural and social orientations in the Unites States (Fang & Wark, 1998).

Since 1852, waves of Chinese immigrants moved to the United States from China, Hong Kong, Taiwan, and other overseas Chinese communities for political refuge, education or family recruiting. The earlier immigrants were mainly laborers and farmers, but the second wave of newcomers included significant numbers of professionals, arriving as whole families. Such significant historical, social, and linguistic differences further highlight the heterogeneity and diversity among them (Fang & Wark, 1998). As a result, there is a remarkable range and variation of Chinese and American cultures among Chinese-American immigrants. This variation impacts the ways that different levels of cultural exposure influence the original cultural and even ethnic identity.

In the past few decades, due to the tremendous amount of migration and the concomitant emergence of multicultural societies, it has become increasingly important to understand more about multicultural individuals. Researchers have increasingly focused on culture and how it influences one’s interactions with others

and the environments (Ying, Lee, Tsai, Lee, & Tsang, 2001;Tsai, Ying, & Lee, 2000).

In the late 20th century, researchers moved closer to identifying the many aspects of culture that might influence human behaviors by conducting research on the issues of ethnic identity, acculturation, and cultural orientation (Tsai, Mortensen, Wong, & Hess, 2002; Ying, 1995). The reason acculturation is worthy of continued study is because it elucidates the mechanisms of cultural influence by measuring the multiple aspects of culture, such as language, social affiliation, and attitudes. It is also essential to illuminate how cultural values, customs and norms are transmitted and how they influence individuals and their families.

Acculturation

Acculturation process

Acculturation is a process through which the attitudes and/or behaviors of individuals are modified in response to a changing cultural context (Berry, et al.,1992). It is also the process whereby individuals adjust to a different culture without conscious endorsement (Tsai, et al., 2002). For many individuals and groups, prior to acculturation, they may not have a very clear sense of their ethnicity. However, when they come into contact with another culture in their society, they may be forced to define their ethnicity.

The 2000 Census showed that the percentage of foreign born immigrants in the United States was 11.1%. This number increased more than 57% between the years of 1990 and 2000. Asian Americans in particular are the fastest-growing racial group in the United States, increasing from 6.9 million in 1990 to 10.2 million in 2000 (U.S. Census, 2000). The overall American population in 2005 was made up of 66.9% White non-Hispanic people, 14.4% Hispanic or Latino people, 12.8% Black people, 4.3% Asian people and 1% American Indian and Alaska Native people (U.S. Census, 2005). Yet in this rapidly diversifying population, relatively few populations have addressed the needs of Asian American immigrant populations. Few have concerned the cultural adaptation of Chinese-Americans, the largest ethnic immigrant minority groups in the United States.

In particular, “greater cultural changes tend to occur in the acculturating group than in the majority group” (Hwang, 2006, p. 397). Thus, it is essential to accurately understand how acculturation can shape and impact the health of immigrant families and subsequent generations, as well as family functioning.

To illustrate the process of acculturation, Berry (2003) focused on the case of immigrants going to set up a new life in another country. When an immigrant family moves to a new country, they may experience dramatic changes brought about by different climate, language, work habits, religion, value system, and social and educational contexts. These differences may be accepted, interpreted, or denied. The

demands of adapting to various types of cultural differences can lead to increased stress, or *acculturative stress*, particularly in the initial months of contact with the new host society (Yeung & Schwartz, 1986). Cultural adaptation may persist for subsequent years as long-term acculturative stress.

Berry (2003) proposed a framework to show how individuals and groups come together to become acculturated (see Figure 1). His framework and discussion emphasized that acculturation research should be able to draw attention to the contact between two distinct cultures, especially to identify certain cultural and psychological changes.

Acculturative models. The unidimensional and bidimensional models have guided the definition of acculturation and are the most popular descriptions of the relationship between an individual's orientation to their own culture and to other culture. Ryder, Alden, and Paulhus (2000) had tested the unidimensional and bidimensional model among Chinese immigrants living in Canada and found that although orientations to majority and minority cultures were negatively correlated in the first generation, they were not correlated in the subsequent generations.

The early model of acculturation was the unidimensional model (Phinney, 1990), and it assumes that one cultural orientation is contrarily related to the other, so individuals become more acculturated to their host (majority) culture and less

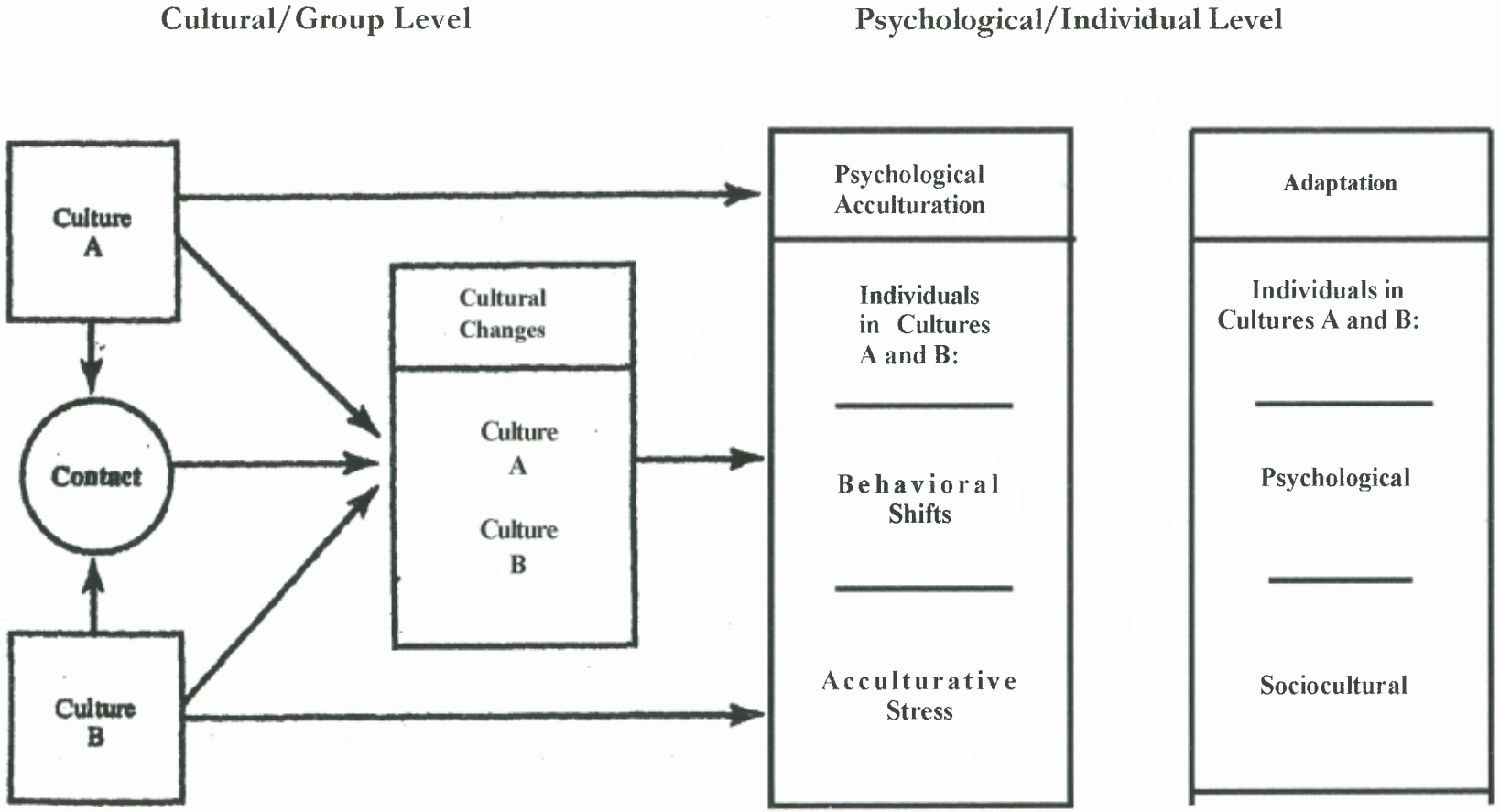


Figure 1: A preliminary framework for understanding acculturation (Berry, 2003).

enculturated to their native (minority) culture. For Chinese-American immigrants, as an example in this study, being Chinese and being American may be negatively (unidimensional model) related to each other because they must adopt the American culture and relinquish certain aspects of the Chinese culture to become more American (Tsai, et al., 2000; Tsai, et al., 2002).

The more recent models include the bidimensional model (LaFrombise, Coleman, & Gerton, 1993; Phinney, 1990) which assumes that cultural orientations are independent of each other. Individuals may be both highly acculturated to their native culture and to their host culture. For example, being Chinese and being American for American-born Chinese may be bidimensional or independent of each other. These individuals may be influenced by the Chinese culture at home or in the Chinese community, while being influenced by the mainstream American culture in school or at the work place. These influences may develop independently of each other (Tsai, et al., 2000; Tsai, et al., 2002).

The term "*acculturation strategies"* (Berry, Kim, Power, Young, & Bujaki, 1989) is the way in which an acculturating individual wishes to relate to the dominant culture as one's acculturative process. Incorporating both unidimensional and bidimensional models and generating a conceptual framework, Berry and his colleagues hypothesized four varieties of acculturation strategies: integration, assimilation, separation, and

marginalization. The two central issues in this framework are “Is it considered to be of value to maintain cultural identity and characteristics?” and “Is it considered to be of value to maintain relationships with other groups?” (see Figure 2)

Accordingly, an individual immigrant may strongly seek daily interaction with the dominant society and may not wish to maintain one’s original culture (assimilation); or in contrast, the individual may hold on to one’s original culture and wish to avoid interaction with others in his/her dominant society (separation). On the other hand, an individual immigrant may be weakly oriented to both original and dominant cultures (marginalization) or may have interests both in maintaining their original culture and in daily interaction with others in his/her dominant society (integration). Each of these four conceptual alternatives has been assessed with individuals in a variety of groups experiencing acculturation.

Four types of cultural orientations and the GEQ. Ying (1995) used these four types of cultural orientations modified from work by Berry’s framework as follows: assimilation (strong American orientation and weak Chinese orientation), separation (weak American orientation and strong Chinese orientation), biculturality (strong American and Chinese orientations), and marginalization (weak American and Chinese orientations). These classifications were used to examine cultural orientation in the domains of language proficiency, cultural activity, and social relationship, and its

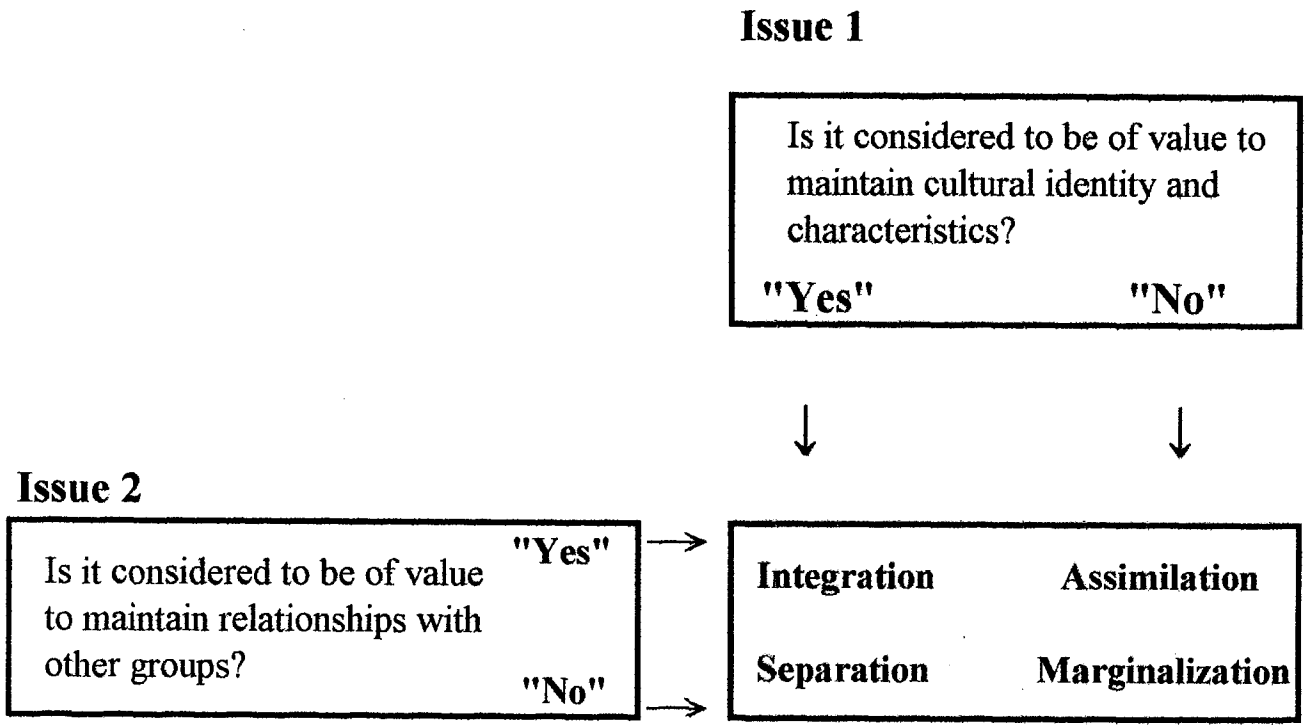


Figure 2 Four varieties of acculturation (Berry, Kim, Power, Young, & Bujaki, 1989)

relationship with psychological well-being in a group of 143 Chinese Americans in San Francisco. Ying found that participants who were of bicultural orientation predicted the best psychological well-being, while socially separatist individuals experienced less negative effects than assimilated and bicultural participants. According to the results of this study, the acculturation strategies influence the quality of the immigrants' psychological lives.

Later Tsai, Ying and Lee (2000) created the General Ethnicity Questionnaire (GEQ) (abridged version), which is one of the main questionnaires used in this study. It examines how the meaning of being Chinese and being American varies among Chinese-Americans, instead of using a single acculturation instrument, either the bidimensional or the unidimensional model. The findings supported their hypotheses that being Chinese and being American are independent for American-born Chinese young adults, but among immigrant Chinese young adults they are dependent. The researchers found that the acculturative status of Chinese-Americans will be based on their specific cultural domains and their engagement in Chinese or American cultural activities.

In Yeung and Schwartz's study (1986), Chinese immigrants who had lived in the United States for less than 1 year reported greater mental health problems than those who had lived longer in United States. Their findings support the hypothesis that while acculturation increases, acculturative stress decreases, and as a result, mental health

improves. In Nicholson's study (1997) of Southeast Asian refugees in the Northeastern United States, it was found that persistent acculturative stress was the strongest predictor of poor mental health status. Thus, how researchers identify any characteristics that would relate to acculturative stress and the resulting mental health problems becomes an essential issue for studying acculturation among Asian immigrants.

The alternative acculturation strategies related to either acculturative stress or acculturative adaptation considers psychological well-being of Asian immigrants.

Acculturation stress and Western-Asian culture conflict

Family. Although the process of acculturation might transform the value of filial piety into a value of Western culture, filial piety may continue to be a prominent value among Chinese-Americans. When family obligations conflict with individual interests, filial piety can be a source of great anxiety. This occurs when new generations of Chinese-Americans are reluctant to being compliant with their parents' wishes and refuse to sacrifice their own personal freedom (Lin & Liu, 1993).

Thus, children are taught to be humble and modest instead of arrogant. They are usually not praised and encouraged because traditional expectations require high academic achievement and hard work. Therefore, the fear of failure begins at an early age and this might lead to guilt, shame, and low self-esteem. During adolescence, the diverging cultural stressors, which include fulfilling family traditional expectations

and adapting to Western cultural values, could cause identity crises while living in the United States. These conflicts and stresses from acculturation can result in poor academic performance in school or maladaptive behaviors, such as running away from home or using drugs (Du, 2006). In the young adult stage, making a career choice, building a social life, and finding a marriage partner are the main sources of acculturative stress.

In the Chinese culture, older adults are typically highly respected for their wisdom, contribution and their sacrifice made for the family. In Asian families, one of the major meanings of filial piety is exemplified by adult children living with their elderly parents, and young adults settling down near their extended families to maintain the family ties and provide support to their siblings and parents in need. Thus, the different aspects of filial piety may cause intergenerational tension because the younger generation, which has adapted to mainstream Western values, may expect healthy parents to live independently (Santisteban & Mitrani, 2003).

Familialism vs. individualistism. Recently, literature has given the greatest attention to the relationship between acculturation and the cultural value of familialism. Marín and Gamba (2003) reported that familialism has been identified as be one of the most important cultural values of Latinos and has also revealed its importance among Asian Americans, African Americans, and American Indians in the

United States. Familialism is usually described as a cultural value that is related to a strong identification and attachment with nuclear and extended families as well as the feelings of loyalty, reciprocity, and solidarity in family (Marín & Gamba, 2003).

The Chinese cultural pattern presented by Lifton is about moderation, balance, and harmony (Santisteban & Mitrani, 2003). The family-centered orientation differs from the Western values which are more individualistic and include competition, autonomy, and self dependence (Santisteban & Mitrani, 2003). “The strivings for autonomy or self-expression are discouraged or suppressed and are treated as selfishness” (King & Bond, 1982, p. 34).

By contrast, American culture places a relatively higher value on individuality and independence. Family members learn to be independent but may not be available to support one another if the family is experiencing difficult times. Whereas the Chinese culture values familialism, relationships, and emotional support from the family; it prioritizes the needs of the family rather than those of the individual (Santisteban & Mitrani, 2003).

The effect of acculturative experiences on collectivistic or individualistic orientations was examined in a cross-cultural study that included seven different kinds of populations. Two of them were first-and second-generation Chinese youth in the United States. The results illustrated that the values of the respondents were

influenced by Western values in their acculturation experiences, especially the value of family as the residential unit. This was significantly different between the first and second-generation youths (Feldman, Mont-Reynaud, & Rosenthal, 1992).

Accordingly, the need for understanding these changes has important implications, not just for understanding family functioning and intergenerational conflict, but also for the provision of culturally appropriate services.

Gender issue. The distribution of power is based on age, gender, and generation in the traditional Chinese value system. In most ancient Asian cultures, the traditional value of gender is that women have a lower status than men. Asian women often assume responsibility for domestic affairs; they provide care and support for the whole family. Women are expected to sacrifice their personal needs for the success of their husbands and children.

Presently, a cultural challenge still takes place among Asian American women when they work outside of the home to support the family financially. Exposure to the Western values of individual rights and independence may lead them to become more confident and enhances the acculturation process (Chen, 2003).

The process of acculturation can affect marital relationships in the some more traditional Chinese-American families. For example, if a woman from a Chinese traditional, male-dominated family obtains a job more easily than her husband, her

new role as the breadwinner may create more tension and stress. The wife would acquire a greater degree of acculturation than her husband because she is part of a new work environment.

Under this acculturation process, the power structure in the family may need to shift from absolute patriarchy to a relatively more egalitarian relationship between husband and wife. In a situation where a husband is required to share his primary leadership role, the possibility of conflict in martial relationship may be increased (Fang & Wark, 1998; Santisteban & Mitrani, 2003).

Acculturation Gap. Acculturation stresses distinctly create the acculturation discrepancy between parents and their children. This discrepancy is also known as the acculturation gap which has been hypothesized to increase the problem in parent-child relationships and likely to cause family conflicts (Fang & Wark, 1998). Early Immigrant Chinese Children have greater family conflict than do American born Chinese children. This is possibility due to a greater parent-child acculturation gap (Ying, et al., 2001). These conflicts seemingly increase during the adolescent and young adulthood stages, especially when the parents are overly authoritative (Rosenthal & Feldman, 1989).

Szapocznik and Kurtines's study (1993) showed that the second-generation immigrant children have a tendency to acculturate faster than their parents. The different rate of acculturation discrepancy between parents and their children might be

related to their linguistic proficiencies (Terry, 2005). The lack of English language fluency among immigrant parents affects employment, which is an important daily functioning domain related to their well-being and quality of life in the United States (Westermeyer & Her, 1996).

Especially important life changes may occur after their immigration, such as loss of previous social roles, or networks, separation from family support, and the need to rebuild social skills among the dominant society. Therefore, if children are more proficient in English or more adaptive to the American society and customs than their parents, they may be required to bear parental responsibilities and concerns, such as shifts in power or role reversals in the family (Chen, 1998). In such a situation, an enormous amount of ambiguity in the generational boundaries may cause intense family conflicts. Thus, language barriers and communication are vital issues among Chinese-American families (Fang & Wark, 1998).

A study by Lee reported that there has been an increase in the number of successful Asian American interracial families (Lee, 1996). In the latter decades of the twentieth century, Asian Americans who brought along their children to the United States became more acculturated due to the help from their westernized adult children. In contrast, Chinese parents with higher traditional expectations came to the United States later than their children and as a result, they might have an intergenerational gap with

their westernized adult children (Leong, 2001).

The differences in acculturation and ethnic identity between first- and second-generation Chinese Americans indicated that higher acculturation and alienation from both Asian and Western value systems predicted higher family conflict (Fu, 2002). A study of first- and second- generation Chinese immigrants was conducted to measure the psychological health and adjustment to life in Britain (Furnham & Li, 1993). It was predicted that problems with the English language, inadequate social support and value differences would provoke more symptoms of psychological distress and depression in first generation Chinese immigrants than in second-generation immigrants.

The intergenerational and intercultural conflict has been revealed to be associated with negative mental health consequences for both parents and their children (Ying, 1999). For instance, an examination of data from the Chinese-American Psychiatric Epidemiological Study reveals that Asian Americans seek help less than do other ethnic groups related to their population size (Abe-Kim, et al., 2002).

Regarding cultural differences, the presentation of illness in the tendency of reporting either more somatic symptoms or less psychological symptoms and the stigma related to mental illness may result in lower help-seeking rates in health care

settings among Asian Americans (Hwang, 2006). In the United States, at least 50 percent immigrants and minority groups with depression still receive neither a diagnosis nor treatment from physicians due to the lack of access to appropriate services and due to the cultural causes of misdiagnosis (Kleinman, 2004).

It is also reported that the higher the level of family conflict that individuals experience, the higher the probability of seeking formal services, both medical and mental health care. Furthermore, family conflict was the strongest predictor of help-seeking for medical services (Abe-Kim, et. al., 2002).

In order to improve health care for Asian Americans who are less likely to receive health services, Hwang (2006) suggested that Western-developed psychotherapies may need to be culturally modified in order to treating clients in a more culturally sensitive manner. Similarly, Ma (2000) suggested that it is necessary to improve health services through adapting to Chinese culture among Chinese Americans.

Ying, Lee and Tsai (2004) developed an assessment instrument: the intergenerational congruence in immigrant families of Child scale (ICIF-CS). Another similar research created the Parent scale (ICIF-PS) for Chinese-Americans (Ying & Tracy, 2004). According to these study conclusions, they recommend that their future studies need to include both generations. It is noted that none of the studies took into

consideration those acculturation discrepancies between parents and their children on both the parents' side and children's side.

Chinese-American family Functioning

For more than 2000 years, the Chinese family developed in China is still the basic unit of society. The family plays a significant role in child rearing, married life, and in the care of the elderly. The primary obligation of Chinese people, beyond self-actualization and self-development, are loyalty, reciprocity in family, and subsequently learning how to establish and maintain a functional family.

Combrinck-Graham (1990) has suggested that poor family functioning is conducive to the development of psychopathology in children and adolescents. The association between family functioning and adolescent adjustment was examined in Chinese adolescents via children's and parents' reports (Shek, 1997). The findings also suggest that family functioning is significantly associated with some of the indicators of psychological well-being, school adjustment, and problem behavior.

During the acculturation process, a family's ability to protect, guide, and nurture its members may be particularly crucial; but their values, beliefs and behaviors may be changed. This process may also provoke the intra-familial stressors and affect the ethnicity-related values among immigrant families (Terry, 2005).

The importance of strong family functioning, therefore, is evident when the complex process of acculturation is complicated within a family system. It is not synonymous with the simple act of assimilation, so its complexity increases the diversity among family members because of the variety of different acculturation responses.

Economic, political, and social factors tend to mold the patterns of family system, rather than the impacts of emotional and psychological factors within the family. The changes in the U. S. immigrant policy have influenced the structure of Chinese - American families, so the traditional family values have gone through a remarkable transformation (McGoldrick, Giordano, & Pearce, 2005).

After World War II, both Hong Kong and Taiwan went through rapid growth in light industries and exports. The impacts of industrialization, westernization, urbanization, and economic brought about a change in Chinese social and family structure. Yet, the older generational Chinese still hold some traditional beliefs.

Furthermore, each individual family member may differ in the degree of acculturation. Polarization within the family is common because the younger ones enthusiastically embrace the American culture while some parents in the family, not all of them, might reject it (Fu, 2002).

Many immigrant families with adolescent children are seeking therapy due to the intergenerational conflicts; specifically their adolescents are in the life cycle of the separation-individuation phase, which has been viewed as a very stressful and stormy period of life (Baptiste, 1990). Also, some of their children become withdrawn and immobilized with depression (Baptiste, 1990; Chen, 1998; Crane, Ngai, Larson, & Hafen, 2005; Ying & Han, 2007).

By understanding that many aspects of this conflict are culturally based, the acculturation differences between parents and their children not only produced intergenerational conflict, but also influenced family functioning and adaptability (Crane, et al., 2005). When the level of family functioning is poor, with little family flexibility and poor communication, the immigration and acculturation-related stressors could result in serious long-lasting family deterioration (Santisteban & Mitrani 2003).

Shame and Face. Shame, in Confucianism, refers to the failure to fulfill personal duties and obligations. It is also the failure to maintain one's identity in the social hierarchy (Hwang, 2001). Due to the emphasis on collectiveness in the Chinese social system, *shame* and *face* are effective stratagems for reinforcing and maintaining proper individual behaviors and societal expectations (Shon & Ja, 1982).

Being judged as a whole by the larger society, the family members save *face* as a shared quality. The *face-losing* or *face-gaining* concerns not only the individual directly involved, but also the whole family (King & Bond, 1985). The individual, therefore, does not only represents him or herself but also crystallizes the collective qualities of the family. This takes into account the ancestors' and the family's reputations (King & Bond, 1982). Under such fear of bringing shame to the family, the individual has a stronger motivation to obey the rules of societal expectations.

It is often said that "the children's behavior problem is the fault of the father," and a well-known Chinese proverb is that "the ugly things [of the family] should not go out of the family gate" (King & Bond, 1985, p. 37). Family problems, interpersonal conflicts and even personal failure in school or at work are considered humiliating experiences which should not be disclosed to outsiders (Hong, 1989). Consequently, if help is needed, Chinese people depend on their families, or on extended family members, rather than on outsiders (Hsu, 1985).

The concepts of *shame* and *face* guide all interpersonal communications (Hsiao, et al, 2006). The belief in fatalistic voluntarism also influences a family to confront crises and problems alone. Both the concepts of *shame* and *face* and the belief in fatalistic voluntarism strongly hinder an individual who wants to seek help. Consequently, it creates a threat to the family.

Family bound. The sensitivity or connection among family members is usually described as a family bond. For children, many acculturation-related variables can effectively influence the level of family bonding. A child, for example, may quickly adapt to American family values, such as the expectation of adult children to be responsible and autonomous, to find employment early in life, and to live on their own.

In contrast, traditional Chinese parents may expect their children to remain in the parental home until they get married. These different values might provoke significant family conflicts and create obstacle and misunderstandings in their relationship (Santisteban & Mitrani, 2003).

Enmeshment, over-protectiveness, rigidity, and lack of conflict resolution, are the four interactive characteristics observed in the Chinese family. Instead of facilitating the expression of psychological needs, these processes may promote somatization symptoms (King & Bond, 1985). Enmeshment is defined as the extremely close relationship among family members, and it is the availability of support for each other. In highly enmeshed families, like a traditional Chinese family, family members do not tolerate uniqueness. This contrasts with the typical American family, which has a relatively higher value of individuality and independence (Santisteban & Mitrani, 2003).

Chinese-Americans display a strong sense of group interdependence. Collectivistic orientation should not be interpreted as "enmeshment" or "fusion" of family functioning. However, Fang and Wark (1998) suggest that group interdependence is mainly important for the immigrant family to survive in the new cultural context where the original support network is no longer available, and even family bonds are threatened because of conflicting acculturation responses.

Family boundary. The family boundary can be highly separative to create great emotional and psychological distance among family members; on the other hand, the boundaries can also be highly permeable, leading to a higher degree of emotional and psychological closeness that may be unendurable for some family members. This closeness or distance created by family boundaries is another dimension to which cross-cultural studies should be more sensitive.

The degree of closeness, for example, in a Hispanic family is generally greater than in a Euro-American family. A Hispanic family demonstrates higher levels of interdependence, conformity, and loyalty. They also give priority to the needs of the family rather than of the individual (Marín & Gamba, 2003). This is similar to the values of Chinese families (Hsu, 1985).

Communication style. Considering the different levels of language deficiency in immigrant families, children may speak only English, whereas their parents may

speak only the native language. In such a family, the communication regularity might be diminished because parents and their children do not speak a common language on the same level (Rhee, Chang, & Rhee, 2003). This situation sometimes will limit the improvement of the quality of their communication. Language, therefore, is a concrete obstacle to the type of effective communication needed during the process of acculturation. There may be little overlap between the shared experiences and interests between parents and their children. However, because of acculturation differences, they have fewer opportunities to share intimate family moments and other bonding experiences (Santisteban, & Mitrani, 2003).

An article by Hwang (2006) describes a theoretical construct, called Acculturative Family Distancing (AFD), as an acculturation gap mechanism among immigrant families. The problematic distancing, which occurred between immigrant parents and children, is a consequence of the differences in the acculturative process. “ADF consists of two dimensions: a breakdown in communication and incongruent culture values” (Hwang, 2006, p. 398). For the communication component, there are studies to suggest that experiencing the difficulties of communication leads the family to encounter less cohesion and even dysfunction (Lee & Chen, 2000; Usita & Blieszner, 2002).

Traditional Chinese family members may express their affections in a different way from the Western custom. The communication is mostly indirect because of personal characteristics, such as compliance, conformity, and indirect emotional and behavioral expressions (Huang & Charter, 1996).

Furthermore, traditional Chinese families avoid talking openly about personal issues, and are particularly unwilling to express strong emotions. They experience greater distress in the way of physical confrontation and exhibit more avoidance, guilt, shame, and severe physical aggression at home (Du, 2006).

Controlling emotions is required for proper behavior, and "restraint (*zhi*) is a highly desirable trait in the Chinese culture" (King & Bond, 1985, p. 34). Displaying affection overtly is discouraged and avoiding conflict to keep the harmony in relationships is frequently valued. For Chinese people, a harmonious relationship with others in the social milieu will considerably influence Chinese people's well-being (Hsiao, et al., 2006).

Healthy social behavior is to maintain emotional balance and internal homeostasis. For example, caution in speech is constantly encouraged, circumlocution is often used, and the solution of conflict in an indirect way is preferred (Bond, 1993). Once the psychosocial stressors increase, somatization symptoms might occur as a stress response. This is unlike the American culture communication style, where

negativity tends to be more easily tolerated, and positive emotions are more easily expressed. Moreover, full conflict emergence with resolution is valued.

Thus, as the result of the cultural root of indirectness in communication style, Chinese-Americans do not wish to express strong feelings in front of strangers, and may have great reservations about confronting others (Fang & Wark, 1998). Occasionally, even direct confrontational attempts usually result in withdrawal from the party who is confronted. If explosive outbursts of anger take place in communication, the relationship will be dangerously broken down by losing face (King & Bond, 1985).

The father, who usually plays an authoritative role, views good family functioning as consisting of a high level of authority and harmony. In this situation, communication usually means parents questioning and lecturing their children. Chinese children seldom express their feelings and opinions spontaneously, nor are they allowed direct negotiation with their parents. Not surprisingly, the children who have authoritative parents may have emotional distance from them (King & Bond, 1985).

When problems arise in the Chinese family, the relationship may become cold and distant due to the silent, indirect or subtle signals of emotional expression. At times, negotiations are most efficiently mediated by a mutually respected third party

such as an uncle, aunt or elder in the extended family. If this coping skill fails, the somatization symptoms, such as headaches, appear severely as health problems (Hsu, 1985). It is common that somatic complaints are the most dominant symptoms among Chinese parents as well as their teen or adult children (Lutz, 1985).

Nonverbal behaviors, along with the acculturation gap mentioned above, are significant risk factors of psychological distress for both parents and their children in Chinese-American families. In addition, an inability to resolve these conflicts through verbal communication skills results in greater family disruption and negatively influences the family cohesion (Tseng & Fuligni, 2000).

Family therapy for Chinese Americans

The acculturation gap has been hypothesized to increase problems in parent-child relationships and is likely to create family conflicts (Fang & Wark, 1998). In addition, an inability to resolve these differences through verbal communication skills accounts for greater family disruption and negatively influences family cohesion (Tseng & Fuligni, 2000). Family conflict was the strongest predictor of help seeking for medical services (Abe-Kim, et al., 2002), and intergenerational family conflict impacted and influenced immigrant families with regards to both physical and mental health status.

In Yeung, Chang, Gresham, Nierenber and Fava's study (2004), they investigated 40 depressed Chinese Americans in a primary care setting. The results showed that 22 patients complained of somatic symptoms. These patients sought help from general hospitals, lay persons, and alternative treatment. They rarely sought help from mental health professionals because they did not consider depressed mood as a symptom.

On the other hand, these cultural somatization symptoms may be unfamiliar to U.S. physicians. In such a complex situation, cultural differences can affect any patient-doctor interaction as well as patient's help-seeking behaviors among Chinese Americans.

Cultural factors are also associated with the mode of treatment in the healthcare system. Lewis-Fernandez and Kleinman (1995) stated that " the cross-cultural psychiatrist examines this interconnection between social world and embodies illness to formulate modes of treatment that take into account the effect of culture as well as individual difference on courses and outcomes" (p. 435).

In the United States, as mentioned earlier, at least 50 percent immigrants with depression still receive neither a diagnosis nor treatment from physicians due to the lack of access to appropriate services and due to the cultural causes of misdiagnosis (Kleinman, 2004). These have been revealed to associate with negative mental health

consequences for both parents and children (Lee, et al., 2000; Ying, 1999). It is necessary to improve health services through adapting to Chinese culture among Chinese Americans.

In order to improve health care for Asian Americans who are less likely to receive health services, Hwang (2006) suggested that Western-developed psychotherapies might need to treat clients in a more culturally sensitive manner.

Accordingly, family therapists are required to become more culturally sensitive, therapeutically flexible, and openly accept family values, which may be completely opposite to therapists' value system (Baptiste, 1990). Although a family may have lived in the U.S. for many years, it is important to remember that the family may still be in the process of acculturation (Baptiste, 1990).

The interventions of Acculturative Family Distancing (AFD), as noted earlier in Hwang's (2006) theoretical construct, are best conducted with the entire family. It is also used effectively while working with individual family members.

Chinese clinicians have applied several family therapy models to their clinical work in Chinese American families. Examples are Family Systems Therapy, Solution-Focused Therapy, and Native therapy. Soo-Hoo (2005) speculated that to integrate different theories working with Chinese-American families by using the term "multicultural Integrative Family Therapy" may be more accurate.

Dance/movement therapy and diverse cultural populations

Theoretical perspective of Dance/movement therapy

The American Dance Therapy Association, founded in 1966, has defined dance movement therapy (DMT) as “the psycho-therapeutic use of movement as a process that furthers the emotional, cognitive, social, and physical integration of the individual” (ADTA, 2008). To date, the mission of American Dance Therapy Association is to establish and maintain high standards of professional education and competence in the field of dance/movement therapy (ADTA, 2008). DMT is a healing form that addresses psychosocial goals through dance and movement. An individual integrates body, mind and emotions with the help of a trained dance/movement therapist who is proficient in non verbal behaviors and knowledgeable in employing psychotherapeutic interventions (Chang, 2006). Furthermore, DMT employs behavior as a result of the relationship between experiences of the self and its expectations of social role. DMT is also concerned with the relationship between inner life and outer reality, as well as “between the constructs of one’s own mind and the processes centered around human interactions” (Pallaro, 1997, p. 228).

Rudolf Laban developed a system of movement notation (Labanotation) in

1926 for recording dance movements. An observational and dance notation system of describing movement behaviors devised by Rudolf Laban (1926), the Labanotation System focuses on the dynamic qualities of movement through recording the symbols as a movement vocabulary (as cited in Nemetz, 2006).

Early studies of nonverbal communication were accepted in the 1960s and 1970s. These studies drew attention to behavior and movement patterns and became a significant foundation for DMT. One of the major theorists in nonverbal studies is Raymond Birdwistell. His contribution, *Introduction to Kinesics* in 1952, specifically deals with movement interaction related to the DMT field (as cited in Nemetz, 2006).

Birdwhistell further studied human gestures and movements. He, like Laban, developed a way of transcribing nonverbal behavior as symbols which were able to be analyzed. Afterwards, Scheflen (1972) developed a theory that body movements have a hierarchical organization corresponding to the levels of verbal communication. He described it in three levels: (a) presentations are shown in relocation of the body, which is the most complex movement; (b) position, the next complex movements, appeared as postural shifts; and (c) points, as the simplest movements, and are presented in hand movements. Since then, research focusing on communication has been an important aspect of the DMT body of knowledge.

Nowadays, “Communication researchers have increasingly started to investigate the interplay of nonverbal and verbal communication, and yet, approaches focusing on movement dynamics are missing almost entirely” (Koch, 2006, p. 115).

Culture and movement patterns

People move differently, especially when they come from different cultures and subcultures. Culturally determined male-female interactions, social sanctions, and social relationships influence an individual’s movement patterns. Boas (2006) focused on the way we recognize and bridge our differences, as well as how to transcend them. To transcend differences is to find the unity in our common humanity and to co-create new cultural forms. She also identified the term competence as “an active engagement, not only academic knowledge but also pragmatic professional know-how” (Boas, p. 113) and stated that “the cultural bodies of individuals are born of, constitute and give rise to the larger body of culture” (Boas, p. 112). The basic foundation needed to work across cultures is gained by understanding the cultural context, which may be an ethnic, linguistic or religious group, and/or a nation (Boas, 2006).

The United States consists of many diverse cultural groups, including Caucasian, African American, Hispanic, Indian, Middle Eastern, Jewish American, European American, Asian American and Native American people. Differences and similarities exist between cultural groups and individual variations, which create greater diversity in

the American society (Coseo, 1997). Therefore, the average American is a combination of many cultural backgrounds and environments. For example, White youth has integrated characteristic Afro-American dance styles into their rock culture. Also, there are many movement patterns transmitted by cultural influences to the next generations.

On the other hand, behaviors and movements reflect the different values, attitudes, and beliefs that people have towards their own culture. It was found by many psychology, anthropology, and dance/movement therapy researchers that culture is an important factor for people to represent and structure their self-identify, self-construction, and body image around. People from different cultures have different movement styles and different attitudes towards movement dynamics (Tepayayone, 2004).

In order to understand and increase effectiveness in working with Asian-Americans in dance/movement therapy, Pallaro (1997) studied the differences of self, and body-self between Asians and Americans. This study summarized into four categories the different ways in which movement is perceived among people of different cultures: (a) the movers' movement qualities should be compared with people from their own culture; (b) each culture has its own cultural images about dance; (c) to understand the mover's movement, it is necessary to have the same context of dance; and (d) in Pallaro's study, all participants are aware of their own

cultural background and individual experience.

Similarly, Birdwhistell (1967) stated that “movement patterns are a ‘kinesthetic language’ which is learned by members of a culture as is the usual verbal method of communication” (as cited in Bernstein, 1981, p. 165). Therefore, the screening of an individual’s movement repertoire from a psychosocial standpoint without concentration of the cultural manifestations is a dangerous and prejudiced proposition (Bernstein, 1981).

Dance/movement therapy and cultural issues

Dance/ movement therapy is a mode of psychosocial intervention which can be used to overcome cultural differences. Fundamental to the body-oriented mode of psychotherapy, DMT has been articulated in the United States and Europe, and its origins are informed by a combination of psychology and dance- a worldwide form of cultural expression. A cultural principle of DMT is that body movement is a basic form of communication. Thus, DMT indulges in patients’ diverse cultural backgrounds, and in the way, DMT is applicable across cultures (Pallaro, 1997). Hanna (1990) stated the following:

> Effective [dance/movement] therapy requires an understanding of the cultural and ecological patterns governing a client’s life, the different concepts of mind, body, parts, time, space, effort, color, texture, and other properties found in everyday life (as cited in Pallaro, 1997, p. 235).

It also requires an understanding of the arts, as well as what movement is done where, when, how, with and to whom.

It becomes obvious that one's coping skills are rooted in a particular culture, and may not be successfully transplanted to a different cultural milieu. The concept of cultural adaptation, in terms of psychological adjustment or maladjustment, then becomes crucial (Pallaro, 1997). "In object relations-informed dance/movement therapy…awareness of one's own social self is attained, and integration of appropriate coping strategies with culturally determined social experiences is achieved" (Pallaro, p. 235). Therefore, awareness of nonverbal cues is vital for therapists to avoid cultural biases, as well as to fully understand the client's cultural adaptation.

Transcultural Competence model for DMT theory and practice. A study by Boas (2006) presents a framework in understanding the knowledge, skills and attitudes which support dance/movement therapy (DMT) practice across cultural boundaries. The author summaries a long-term qualitative inquiry from over 60 countries and discusses the implications of the certain Transcultural Competence model for DMT theory and practice.

The author recommends that ethnographic research on the culture of DMT should be conducted. Evaluations of professional DMT practice across cultures should be carried out, and finally movement-based cultural dimension concepts

should be developed. These will lead the culturally created and creative human body towards the heart of DMT (Boas, 2006).

DMT practice in different cultures

An article by Harris (2007) reported on DMT and its transcultural applicability. DMT has an unusual consensus in one treatment modality of three elements. These elements are as follows: (a) the foundations in Western psychotherapeutic theory and practice, (b) the global phenomenon of ritual in dance, and (c) holistic belief in the union of mind and body. Harris stated that "DMT should be ideally suited to respond to the effects of torture and war among persons from holistic, collectivist cultures" (p. 134).

This essay documented the use of dance as a medium of healing among war-affected African youths in West African refugee camps, and those who are living in post-conflict situations in their war ravaged homelands. Harris (2007) stated that "Dance movement programs, if appropriately designed to maximize cultural relevance, may prove an effective means of fostering resilience after massive violence" (p. 135). A report from Harris presented the success of the process by stating that "DMT approaches are shown to embody revitalizing psychosocial support in the aftermath of massive violence" (p. 134).

A workshop by Chang (2006) based on an ethnographic case study examined "how the theory of DMT is applied to clinical practices in multicultural settings can lead to *culturally congruent* treatment interventions for patients from a diversity of cultures, races, and ethnicities" (p. 193). The findings showed that "individual motivations to engage in DMT were congruent with those of students in the United States, but that education theories and approaches were conditioned by the habits of each culture" (p. 192). Chen suggested that "further investigation is needed as to whether culturally embodied knowledge and indigenous forms of psychophysical healing can be learned across cultures" (p. 203).

Indeed, DMT as a "basic mode of communication" is accepted across many cultures, and dance/movement therapists are well prepared to engage in a transcultural profession.

Family Dance/movement therapy assessment and family assessment

Nonverbal behaviors and family language

A descriptive study by Deterson (1991) focused on exploring the frequency patterns of movement occurring within a family system related to family processes. The author defined frequency patterns as the number of times family members'

interactions occurred within a specific time period. The hypothesis of this study was that the nonverbal interactions in families appear as family languages, in which each person speaks the same language or uses the same nonverbal behavioral patterns.

The results from this study, suggest that (a) children speak a different language from parents, as well as males from females; (b) nonverbal language of the culture might be a reflection of some patterns of behaviors; (c) same nonverbal behavioral patterns that existed within families may reflect family norms; (d) those nonverbal behavioral patterns, especially blocking, a lesser degree of eye contact, shared focus, gestures and partial body actions, were specific for each family and different from family to family; and (e) the above findings from this study may apply to those involved in clinical work. They can be instructed to focus on the family issue of limited communication, as opposed to only focusing on verbal therapy (Deterson, 1991).

Movement observation in dance/movement assessment

Movement observation is an essential form of assessment for DMT. Since the diversity of DMT practice, there is not a single assessment tool completed for all assessment needs in DMT.

In the early 1960s, Condon began a microanalytic study of the coordination between movement and speech. Condon (1975) showed that speech and movement

are rhythmically coordinated, and a change in one behavior will coincide or be coordinated with the onset of change in another behavior. For over three decades, Condon and his colleagues studied the rhythmic structure of human speech communication. They have discovered two kinds of synchrony: self synchrony and interaction synchrony. Synchrony creates a space of communicative interaction (as cited in Knapp & Hall, 2002).

Interaction synchrony occurs as body movements coordinate between two speakers. It is a kind of social rhythm, including *matching* and *meshing* behaviors. "Interaction synchrony can manifest itself through matching behavior-similar behavior occurring at the same time (postural congruence or motor mimicry) or similar behavior occurring in sequence (one speaker raises his or her voice, followed by the next speaker raising his or her voice)" (Knapp & Hall, 2002, p. 285). On the other hand, the meshing behavior is out-of-synchrony behavior, which may reflect decreased listening or a lack of awareness of one's partner.

The Kesternberg Movement Profile (KMP) (Kestenberg Amighi, Loman, Lewis & Sossin, 1999) is an assessment tool used in the field of DMT. The KMP emphasizes observation skills and develops clinical skills to facilitate the ability of assessment and diagnosis, and to aid in the treatment process. It is "a Laban-derived, developmentally grounded system of movement description" and it provides "a

refined movement language to the dance/movement therapist, as well as a psychological interpretation for what is seen in the body" (Hastie, 2006, p. 121).

The focus of the movement patterns described in System I of KMP is Tension Flow. The movement qualities include patterns which reflect needs (Rhythms), affect qualities (Tension Flow Attributes), defenses against undesirable impulses and learning strategies (Pre-efforts), and the way of coping with every day problems (Efforts). The System II of the KMP also consists of five diagrams: Bipolar Shape Flow, Unipolar Shape Flow, Shape-Flow design and Shaping in Directions, and Shaping in Planes. These diagrams focus on the movement of body in space and its movement qualities. They help us to understand the relationship between the mover and his/herself, as well as between the mover and others (Kestenberg Amighi, et al., 1999).

In KMP, "an indulging rhythm is based on rhythms which have an indulging, accommodating, mobilizing quality." "A fighting rhythm is based on rhythms which are more aggressive and differentiating" (Kestenberg Amighi, et al., 1999, p. 26).

The other systems of movement assessment were developed and known both as Effort/Shape analysis and Laban Movement analysis (LMA). The effort concept of the LMA system includes Weight, Time, Space and Flow, and serves as a basis for a diverse movement observation scales.

> Maletic (1987) summarized the Effort elements as the following:
>
> The manifestations of inner Efforts or movement motivations are described in terms of our inner attitudes engaging the four factors of motion- Space, Weight, Time, and Flow- and their eight polarities of Effort elements [Indirect/Direct in Space, Light/Strong in Weight, Sustained/Sudden in Time, and Free/Bound in Flow] (p. 192).

Maletic also considered Laban's concepts from the viewpoint of the mental and physical components of Effort about indulgence and fighting:

> Laban considered psychological components of Effort control were the two polar attitudes of "indulgence in" and "fighting against" all four motion factors of Space, Time, Weight and Flow are highlighted and associated with the ease or struggle of various activities. (p. 100).

In the assessment of families, both verbal and nonverbal approaches are important. Moreover, it is suggested that dance/movement therapists could contribute knowledge and intervention tools to the nonverbal approach in family systems. Dulicai (1977) devised a body movement assessment scale, Nonverbal Family Assessment Systems (NVFAS), which combined kinesic factors and Laban's Effort/Shape analysis of body movement to measure the family process (Dulicai, 1977). The NVAFS is completed using videotape of a dyad or larger family interacting in either a seated discussion or in dance/movement

therapy context. The instrument has been found to differentiate successfully between families that are functioning in the healthy range and those with dysfunctional patterns (Dulicai, 1977).

NVFAS application to family DMT assessment

A comparison study videotaped four functional and four dysfunctional adaptive families based on movement analysis by using the NVFAS without audio assistance. The result showed that behaviors of the functional families were increased bonding, molding, full body action and movement parameters, as well as less blocking and separating behaviors than behaviors of the dysfunctional families (Webster, 1987).

A study of parent-child interaction (Sigelman & Adams 1990) showed that in naturalistic settings, the nonverbal interaction patterns of child to child were different from adult to adult. It also found that as child age increases, the parent-child distance increases, which support the need of children to mature while separating themselves from parents.

Using the quantitative scores of the NVFAS, a study by Dulicai (1995) explicates movement indicators of attention and their role as identifiers of long-term lead exposure among children the aged of 15 to 36 months. The result showed that these children's movements, scored with known lead levels during pregnancy, at birth and at six month intervals, were correlated to the level of lead exposure and attention deficit.

Another family-based study using the NVFAS compared mother-child relationship in dyadic dance/movement therapy to individual dance/movement therapy. The results showed that the children diagnosed with autism and their mothers who received dyadic DMT demonstrated greater positive change in the quality of their interactions (Diamond, 1996).

In Corman's study (1997), the author used the NVFAS to rate the interaction between a father, who was diagnosed with degenerative Cerebral Palsy, and his son, whose diagnose was autism, before and after six-weekly dance/movement sessions. The result showed that their interaction options were increased by displaying a broader movement repertoire.

A pilot comparative study (Sbiglio, 2006) also used the NVFAS in two groups of Puerto Rican families, one with a history of family violence and one without, to evaluate their interaction patterns between family members. The result presented some evidence of differences between the two groups; there were more bonding behaviors in the family with a history of violence. The author suggests that nonverbal predictors are a complementary tool for early detection of at risk families undergoing treatment process. However, in the assessment of potential violence, it is difficult to rely on self-reported data, as is demonstrated in this study (Sbiglio, 2006).

Family assessment-FACES IV

The Circumplex Model and Family Adaptability and Cohesion Evaluation Scales, FACES I, II, and III, were considered the best family assessment instruments in previous studies (Kouneski, 2000). Limitations of previous FACES measures have resulted in the development of the FACES IV measure. Franklin, Streeter and Springer (2001) used data from an adolescent population to further examine the psychometric properties of the FACES IV measure.

Researchers videotaped sixty families engaging in standardized family tasks in order to assess the sensitivity and specificity of clinical rating scales from the Beavers, McMaster and Circumplex models of family functioning (Drumm, Carr & Fitzgerald, 2000). The Beavers and McMaster models showed particularly high levels of sensitivity in detecting clinical cases; whereas the Circumplex rating scale (CRS) was particularly good at classifying non-clinical cases accurately. According to their results, the rating scale of the Circumplex model was the best way to record non-clinical family functioning. Therefore, the combination of the self-report FACES IV and the observational measurement CRS are recommended to family research study (Olson, 2003).

The FACES IV scales includes : (a) two balanced scales, they assess *balanced family cohesion* and *balanced family flexibility,* and (b) four unbalanced

scales, they assess the high and low extremes of cohesion and flexibility: *disengaged* and *enmeshment* scales for cohesion, and *rigid* and *chaotic* scales for flexibility. Their range is from the healthiest to the most problematic types of family functioning (Olson, et al., 2006). The FACES IV scales also identify six family types by using cluster analysis.

CHAPTER III: METHODOLOGY

Research Design

This is a mixed collective case study designed with two cases. Both qualitative and quantitative data were collected, analyzed and synthesized to assess acculturation differences in relation to nonverbal interaction patterns between parents and their young adult children in Chinese-American immigrant families. The sample consisted of two Chinese-American families where immigrant parents have children who are identified as American-born Chinese (ABC), early-immigrant Chinese (EIC) or late-immigrant Chinese (LIC).

A collective case study is an instrumental case study of more than one case (Mertens, 2005). An instrumental case study is conducted in order to explore a phenomenon of interest by studying one example. In this project, the phenomenon of interest is the intergenerational dynamic and acculturation in Chinese-American families. Typically in a qualitative case study, data are triangulated to provide multiple perspectives on the case. For this study, both qualitative and quantitative data are triangulated through the collection of both self-report data and observational data.

A case study is appropriate for this question because to date there is no other published study integrating and examining nonverbal interaction patterns in relation to acculturation and intergenerational relationships in Chinese-American families.

Basic information about the family was collected by using a demographics questionnaire. Acculturation was assessed by using the self-report General Ethnicity Questionnaires, available in Chinese (GEQC) and American (GEQA) versions. Family functioning was assessed with both the self-report Family Adaptability and Cohesion Evaluation Scale IV (FACES IV) and the observational instrument, the NVFAS.

The specific research objective was to form a holistic description of two families through an integration of data from the NVAFS and the FACES IV assessments in relation to how family members characterize their acculturation in the GEQC and GEQA. The NVAFS analysis focused on intergenerational nonverbal exchanges as well as family system patterns. Intergenerational dynamics were ascertained by comparing the FACES IV and the GEQ responses from the young adult participants along with their parents.

Statement of research question. What is the relationship between the different levels of acculturation, family functioning and nonverbal interaction patterns in Chinese-American Families?

Measurements

Demographic Questionnaire

The Demographic Questionnaire was used to document basic background

information for each family member, including age, gender, marital status, migration status, years of residence in the United States and the socioeconomic status (Appendix A).

General Ethnicity Questionnaire

This study used the self-report General Ethnicity Questionnaire, available in both Chinese version (GEQC) (Appendix B) and American version (GEQA) (Appendix C) (Tsai, Ying, & Lee, 2000), and provided by the test developer with the explicit permission for use (see Appendix D).

The GEQC refers to Chinese culture, and the GEQA concerns the aspects of American culture. There were two reasons for using the General Ethnicity Questionnaire (GEQ): first, to assess the level of cultural orientation for each family member and second, to assess whether each family member differs from other family members in his or her exposure, engagement, and participation in both Chinese and American culture.

The General Ethnicity Questionnaire (GEQ) not only has 38 questionnaire items to examine participants' cultural orientation, but also includes six distinct and conceptually meaningful factors in the GEQC and GEQA. These are called *Specific cultural domains* and they examine acculturation and cultural orientation in terms of how individuals oriented their cultural issues in different life domains. It is possible that a person's notions of being part of a particular cultural group are based on these

specific cultural domains. There are Chinese culture domains and American culture domains described as follows:

Chinese cultural domains*:* (a) Language: Chinese language use and proficiency, (b) Social Affiliation: social affiliation with Chinese people, (c) Activities: participation in Chinese activities, (d) Attitude: pride in Chinese culture, (e) Exposure: exposure to Chinese culture, and (f) Food: preference for Chinese food (Tsai, et. al., 2000, p. 312).

American Cultural domains*:* (a) Language: English language use and proficiency, (b) Social Affiliation: affiliation with American people, (c) Activities: participation in American activities, (d) Attitude: pride in American culture, (e) Media: preference for media in English, and (f) Food: preference for American food (Tsai, et al., 2000, p. 313).

These two specific cultural domains share the same factors, but the Exposure factor in GEQC and the Media factor in GEQA contain different questions items sampled by the inventories.

Family Adaptability and Cohesion Evaluation Scale IV

The complete FACES IV Package contains eight scales: six scales from FACES IV plus the Family Communication scale and Family Satisfaction scale. FACES IV assesses the cohesion and flexibility dimensions of family functioning; family communication assesses communication (the third dimension of the Circumplex Model), and family satisfaction assesses how happy family members are with their family system.

The FACES IV Package contains 62 items: 42 items from FACES IV, 10 from Family Communication and 10 from Family Satisfaction. The entire FACES IV Package of 62 self-report items was used in this study (Olson, et al., 2006). There is an English language edition (Appendix E) provided by the test developer with explicit permission for use in this study (Appendix F).

Nonverbal Assessment of Family Systems

The Nonverbal Assessment of Family Systems (NVAFS) is an assessment of nonverbal behaviors and interactions derived from Laban Movement Analysis (LMA) and nonverbal communication research, adapted for the study of family processes (Dulicai, 1977, 1995). It integrates kinesic factors and qualitative movement dynamics to assess the interaction behaviors among family members. It defines and catalogs a series of interactive behaviors including blocking, molding, partial body action, separating behaviors, shared focus and personal predominant movement (Dulicai, 1977, 1995).

The NVFAS has been used with multiple cultural groups and is adaptable for use in many cultural contexts (Dulicai, 1995; Sbiglio, 2006). Moreover, the instrument has been found to differentiate successfully between families that are functioning in the healthy range and those with dysfunction.

For interaction sequences, a pattern analysis of interaction reveals the characteristic style of interaction in family. Please see Appendix K for the NVAFS

data sheet: Interaction. In addition to the pattern analysis of interaction sequences, raters record predominant movement qualities and dynamics displayed or used by each individual family member. These were recorded on the NVAFS data sheet: Profile (Appendix L). In this study, the NVAFS is completed using videotape of a family interacting dyad in a seated discussion.

Kesternberg Movement Profile

The KMP, a movement analysis system, systematically categorizes movement within a psychodynamic and developmental framework. It describes the movement qualities that reflect a person's needs and feelings, drives and affect, personal learning style and defenses, feelings about oneself and others and modes of relating and coping with the environment. There are nine clusters reflecting different movement patterns divided into two subsystems. System I reflects emotions and relates to internal and external reality; while System II analyzes movements which reflect relationship to the environment (Kestenberg Amighi, et al., 1999).

In this study, certain clusters of KMP element -Tension Flow Rhythms and Attributes, Shape Flow, and Shaping in Directions- were observed and interpreted in order to build a full description of nonverbal behaviors of each family member.

Interaction Synchrony

Condon and his colleagues have discovered two kinds of synchrony, self synchrony and interaction synchrony. Interaction synchrony, as described in *Chapter II: literature review*, occurs when body movements coordinate temporally between two speakers, including *matching* and *meshing* (Condon, 1975, as cited in Knapp & Hall, 2002).

In this study, the interaction synchrony in terms of matching and meshing behaviors was observed and described with sound off by the student researcher.

Participants

The study was designed for up to three participating families. Two Chinese-American families living in the greater Philadelphia were recruited for this study.

Inclusion Criteria

Criteria for parent. Participant parents must be immigrants, (a) they have at least one child who is 18 years old or older, (b) they were born and raised outside the USA, primarily in Mainland China, Taiwan, Hong Kong or Macau; their primary language will be Mandarin or English, and (c) they are 89 years of age or younger.

Criteria for young adult children. They must be either (a) American-born Chinese (ABC), or (b) early-immigrant Chinese (EIC) who entered the U.S.A. before or at the age of 12, or (c) late-immigrant Chinese (LIC) who entered the U.S.A. after the age of 12. They are 18 years of age or older.

Exclusion Criteria

(a) Any one of the family members who reports to have a mental health diagnosis. This is to avoid the introduction of risk to the family and its members.

(b) Any one of the family members has a history of domestic violence, child/sexual abuse, or substance abuse. This is to avoid the introduction of risk to the family and its members.

Enrollment Procedure

Participants for this study were recruited through Chinese Christian Church and Center in Philadelphia. Please see Appendix G for the letter conferring permission from this organization and its divisions to recruit participants. Three documents: a recruitment flyer, a scripted announcement and an invitation letter, were used for recruitment in the manner described below.

Recruitment flyer. The flyer (Appendix H) was posted in the entrance of Chinese Christian Church and Center buildings on the bulletin boards and was placed near the

front desks so that whoever was interested in this study could take a copy home.

Scripted announcement. The director of the Chinese Christian Church and Center read the flyer text out loud in a meeting of the congregation before or after the religious service.

Invitation letter. The invitation letter (Appendix J) was distributed by the church's greeters to the members who attended the Sunday Service.

Procedures

Activities above occurred over a three-week period of time. For one of those weeks, immediately after the Sunday Service, the student researcher stood beside a desk in the church lobby to explain the content of the flyer and the invitation letter for any potential participants who might have questions. The explanation was limited to clarifying the meaning of information on the recruitment materials and did not involve any screening or individual discussion of any family. On the first Sunday the student researcher did this following the English language service, and on the second Sunday after the Chinese language service at the Chinese Christian Church and Center.

Pre-screening procedure. Any adult family member (18 years of age or older) who was interested in this study called the student researcher through the cell phone number given on the flyer and the invitation letter. An initial screening meeting was then arranged.

Initial pre-screening meeting. The initiating family member met with the student researcher for a brief individual interview in a private room at church. This was for the purpose of screening and in order to determine the individual's eligibility for the study. The student researcher gave the flyer with the Flyer Form (Appendix I) attached to the potential participant. The potential participant was asked to read the flyer again and to complete the attached Flyer Form**,** and then handed the flyer and the Flyer Form back to the student researcher. The student researcher then would inform the potential participant as follows: "Thank you for your interest in this study. If your family is one of the first three families to qualify for the study, I will contact you again to schedule the family interview."

The student researcher then thanked the potential participant and ended the initial screening meeting. The initiating family member then was instructed to ask remaining family members who are 18 years of age or older to contact the student researcher within the week.

The student researcher then arranged and met separately with each adult member for an individual initial pre-screening meeting. The student researcher reviewed all Flyer Forms from all family members to confirm the eligibility. Once each member of a potential participating family was qualified, the student researcher then contacted the family to schedule the family interview, which was arranged at the family's convenience.

The family was asked not to bring along any other members younger than 18 years of age and to arrange on their own for the care of any other family members who needed it. The first three families in which each member checks “qualify” on the Flyer Form would be invited to enroll.

If there was one family member who has checked: “I Do Not Qualify” on the Flyer Form, the family would not be eligible to participate. In this case, the student researcher would contact the family by telephone and convey the following message. “Thank you for your interest in this study. Your family was not one of the first three to qualify. Because we only need three families for the study, we will not need your help with this project.” The student researcher would not leave this message on voicemail. Rather, she would speak directly to one family member with this message. She would not engage in any further conversation with the family member beyond this message.

The pre-screening procedure above constituted a self-selection process, and the completed Flyer Form of each family member was for recording purposes only. All Flyer Forms were kept in a locked room of the Drexel University, Creative Art Therapy program offices and were destroyed at the conclusion of the study, which is no later than the calendar year after data collection is complete.

The student researcher was accompanied and assisted by a research advisor who is Chinese, fluent in both English and Chinese, and an experienced mental health

therapist serving Asian families in the Philadelphia area. The student researcher and research advisor were present at the Chinese Christian Church and Center for consent procedures and the family interviews. The purpose of having this particular research advisor present was to provide professional support to the student researcher and to ensure the safety of the family members during the videotaping session in discussion.

Consent Procedure. This took place at the beginning of the family interview and occurred in a private room in the building of the Chinese Christian Church and Center. Because each potential participant had already been individually screened, there was no potential for disclosure of private information related to inclusion and exclusion criteria within the family context. Thus, the presentation and completion of Informed Consent Forms took place in a family context without introducing risk.

The overall study was described to the family and the Informed Consent Form (Appendix M) presented for review. The student researcher then instructed the family that if any potential individual participant had any questions about the Informed Consent Form, those questions would be answered in a small private room adjacent to the room where the family meets. If this occurred, the research advisor would stay with the family, and the student researcher would accompany the inquiring family member to the adjacent private room to address any questions. In this way, the privacy of each potential participant was maintained throughout the consent procedure. During the consent procedure, the

participants did not have any questions that needed to be answered.

Each participant was asked to sign two Informed Consent Forms. After all members present had completed the Informed Consent Forms, the student researcher and research advisor collected the one copy of each participant's Informed Consent Form and the other remained with the participant for his or her record. The data collection portion of the study then commenced.

Data collection

Demographic Questionnaire

The Demographic Questionnaire was completed by each participating parent and young adult child. It took approximately five minutes to complete. The purpose of collecting demographic information was to describe the study sample.

Family Discussion videotape

Participant families were than asked to engage in a family discussion structured around three questions: (a) spending $1000 as a family, (b) describing the family's activities in a significant festival, and (c) the parents choose a Chinese proverb and the family members discuss what it means to them. These questions are commonly used in family assessment studies and are modified from work by Drumm, Carr, and Fitzgerald (2000) in order to generate family interaction related to the

dimensions of family cohesion and flexibility in a culturally acceptable way for Chinese-American families. Each question took about 5-10 minutes to discuss, and the discussion for videotaping took 15- 20 minutes total. The student researcher and research advisor were not involved in family discussions, but operated the video camera and sat behind the camera (i.e., not in the family seating formation).

General Ethnicity Questionnaire

After a five minute break, the student researcher presented each participating family members with two self-report questionnaires: GEQC and GEQA. They completed the Chinese version before the American version of the GEQ. If family members had any questions, the student researcher would respond to these questions. This took about 10 minutes.

Family adaptability and cohesion evaluation scale IV

After completing the GEQC and GEQA, each participant was asked to complete the FACES IV self-report questionnaire. This took approximately 10 minutes.

After completing these questionnaires, the student researcher thanked the family members for their participation and gave the family a gift card worth $30. The gift cards were from Dunkin' Donuts, a popular merchant in the Chinese Church congregation from which the sample is drawn. If the family discontinued participation before the study

activities above were complete, the family would not receive the gift card. They decided to continue participation and all of then received the gift cards after the study was completed.

The student researcher asked them if they would be interested in the research results after the project was complete. The families were not interested in the results.

Possible Risks and Discomforts to Subjects. This study presented minimal risk to family members and included special precautions to minimize risk. First, the student researcher and the research advisor used both Chinese and English as needed to communicate with the family in case of they needed to address or decrease any anxiety that might occur in relation to the family discussion, the questionnaire, or the videotaping sessions. Any possible discomfort during the videotaping session due to family members' lack of exposure to a video camera was minimized by arranging the camera in an obscure corner during the videotaping.

There was a slight risk that discussing three topics together might introduce family discord or psychological distress. Should this occur, research advisor, Ms. Huo, MA, ATR-BC, LPC, a qualified mental health professional with experience in group dynamics and in serving Chinese families, would intervene to reduce family tension and to redirect or close the discussions, if necessary. The student researcher and research advisor had completed graduate level coursework in group dynamics and group therapy at

Drexel University. Both of them carried mobile phones in case of any needs to contact additional resources outside the Chinese Christian Church and Center.

Data analysis

Demographic Questionnaire

A total of two Chinese-American families, Family J and Family K, completed the demographic questionnaire. The responses were recorded for the basic description of each family in the sample.

General Ethnicity Questionnaire

A total of two Chinese-American families completed the GEQ to assess their cultural orientation. GEQC and GEQA are identical forms that include 38 items. The student researcher scored the GEQC and GEQA responses using the scoring provided by the test developers and according to the published scoring instructions. On these two instruments, participants used a 5-point scale ranging from 1 = *strongly disagree* to 5 = *strongly agree* to rate 25 items relating to their social affiliations, activities, attitudes, exposure, and food. Participants used a similar 5-point scale ranging from 1 = *very much* to 5 = *not at all* to rate the other 13 items pertaining to language use and proficiency.

The Paired *t*-test is used to compare samples where they are not independent of one another (Hopkin, Hopkin, & Glass, 1996). In this study, the student researcher compared a participant's GEQC ratings with his GEQA ratings by using the Paired *t*-test. This test was considered appropriate because these two versions of GEQ are exactly the same but differ in their reference culture. The student researcher also used the Paired *t*-test in each family to compare the GEQC and GEQA scores respectively between the father and the son due to their cultural orientations are not independent to each other.

The Pearson *r* Correlation coefficient (Hopkin, et al, 1996) was used to analyze the correlation between the GEQC and GEQA scores from each individual participant's overall ratings.

Family Adaptability and Cohesion Evaluation Scale IV

A total of two Chinese-American families completed the FACES IV questionnaire to assess the family functioning. This assessment provided information on how the family system was functioning. The six scales of FACES IV provided a more complete picture of balanced and unbalanced scales as perceived by each family member.

The student researcher scored and plotted the 42 items of FACES IV using an Excel Spreadsheet provided by the test developers. This specially designed spreadsheet provides the following FACES IV scores: two *Balanced* scores (*Cohesion*

and *Flexibility*), four *Unbalanced* scores (*Rigid, Chaotic, Disengaged* and *Enmeshed*) and the *Ratio* scores (*Cohesion, Flexibility and Circumplex Total Ratios*). The spreadsheet also provides scores for the other 20 items: 10 items from *Family Communication* and 10 items from *Family Satisfaction*. The student researcher followed the published procedures for scoring and plotting according to the FACES IV administration manual (Olson, et al., 2006).

Conceptually, these *Ratio scores* assess the degree to which a system is balanced or unbalanced on cohesion and flexibility. The ratio compares the relative amount of balanced versus unbalanced characteristics in a family system. A *Circumplex Total Ratio* provides a summary of a family's balanced (health) and unbalanced (problem) characteristics in a single score. The formulas of the *Ratio scores* are described as the followings:

(a) *Cohesion Ratio* = Balanced Cohesion / (Disengaged + Enmeshment / 2)

Flexibility Ratio = Balanced Flexibility / (Rigid + Chaotic / 2)

The lower the ratio score, the more unbalanced the system. Conversely, the higher the ratio score, the more balanced the system.

(b) *Circumplex Total Ratio* = Balanced Cohesion + Balanced Flexibility / (Disengaged + Enmeshment + Rigid + Chaotic / 2)

(c) *Six Family Types*-they are: *Balanced, Rigidly Cohesive, Midrange,*

Flexibly Unbalanced, Chaotically Disengaged and Unbalanced (see Figure 3). In Figure 3, the family typology based on the scores of six FACES IV scales provides for studying and analyzing family relationships. It contains example data from Olson, Gorall and Tiesel's study (2006) showed in the FACES IV manual. According to the *Circumplex Total Ratio* score, the *Balanced* family type has the highest ratio of 2.5; the *Rigidly Cohesive* has 1.3 ratio score; the *Midrange* has a ratio scores near one. *Flexibly Unbalanced* type is 0.75 ratio score, and the *Unbalanced* (ratio score 0.24) and *Chaotically Disengaged* (ratio score 0.38) are the most unhealthy family types.

(d) FACES IV Profile score system- Cluster analysis in FACES IV was performed in order to determine if there are naturally occurring patterns in describing family systems across the six FACES IV scales.

Nonverbal Assessment of Family Systems

The nonverbal interaction among the family members was videotaped for the NVAFS and the observational data. Each family's discussion was videotaped and the tapes was edited to create a total 20-minute session.

Rater selection. Two raters participated in this study for rating with the NVAFS. These two raters, Dianne Dulicai, Ph.D, ADTR and Warin Tepayayone, MA, ADTR, have experiences in movement observation and nonverbal behavior training and will demonstrate professional assessment skill in data analysis. One of the raters (Dr. Dulicai)

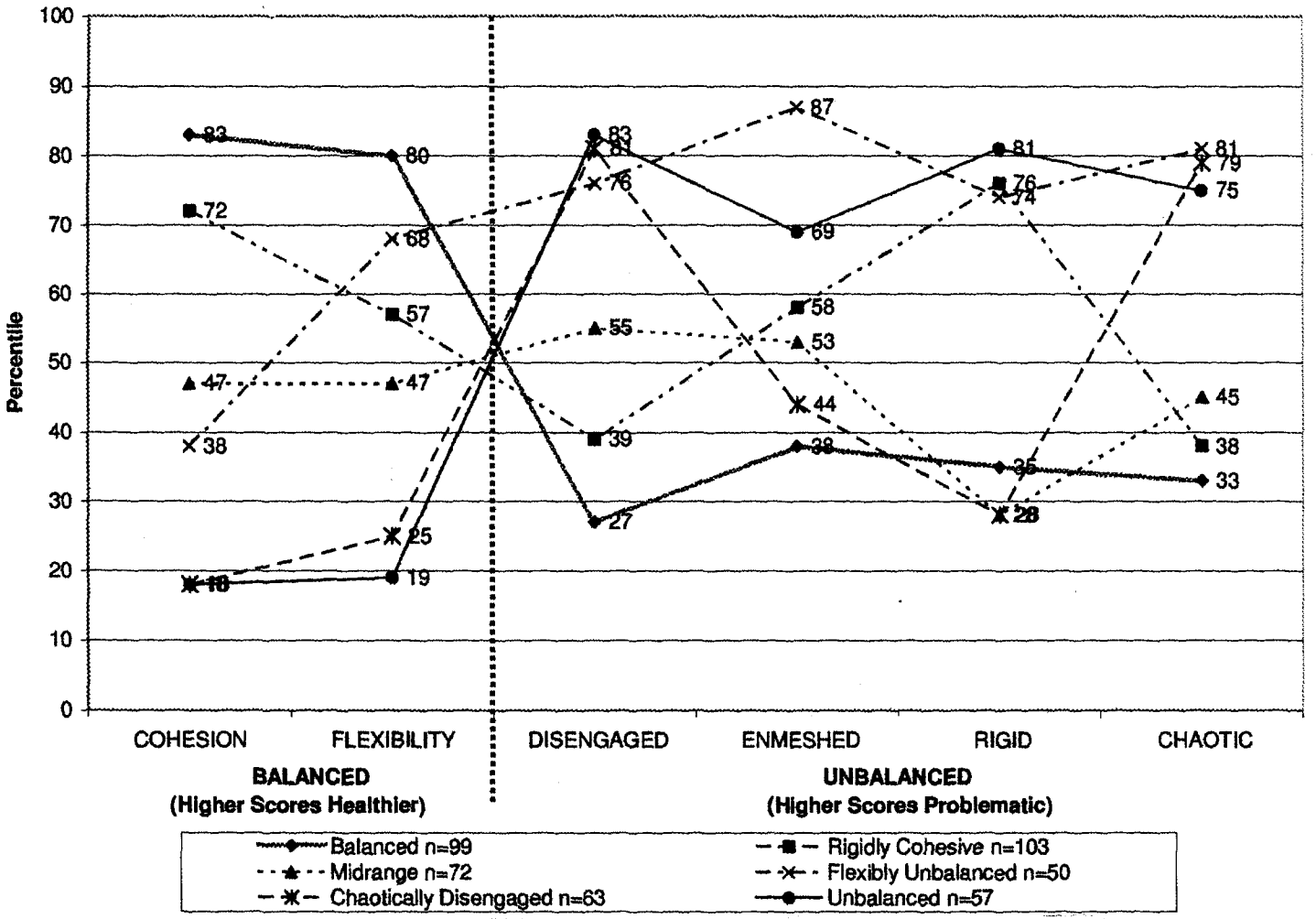


Figure 3 FACES IV Profile: Six Family Types

authored the NVFAS and is on the faculty in Drexel University's Hahnemann Creative Arts in Therapy Program. She is considered an expert rater for the purposes of this study. The other rater is a professional dance/movement therapist who has completed a course in the NVAFS. They rated the videotapes together in the faculty member's office. The student researcher prepared and labeled the videotapes and data collection forms, and then mailed the videotapes and forms by courier service to Dr. Dulicai's office. When the videotapes were received, the raters contacted the student researcher and arranged for rater training.

Rater training. The student researcher conducted rater training by telephonic conference call with the raters. It consisted of reviewing the NVAFS (Dulicai, 1977, 1995) checklist and the definitions of parameters on the assessment. Any unclear definitions or parameters were clarified. The raters observed together an example videotape of a family in discussion. The example tape was from the Creative Arts Therapy program library and is already released for teaching purposes. The raters engaged in discussion and then practiced scoring the example tape. The rating of study tapes began when the two raters agreed at the level of 90% or more.

The raters watched the videotapes at the same time and were allowed to discuss what they were observing. As the focus of this study component was nonverbal behavior, they observed videotapes with sound-off. They then completed the NVAFS for each

family using consensus rating. In consensus rating, the raters together identified and described the nonverbal interaction patterns observed between family members, as well as the frequency and presence of NVAFS parameters for each family member. Raters were allowed to view each segment as many times as needed for confirming observations and obtaining more accurate scores.

Each rater was given a stipend with a value of $50 as a “thank-you gift”.

Kestenberg Movement Profile

The student researcher then viewed the tapes for selected Kestenberg Movement Profile (KMP) elements. The theoretical framework of the KMP was described in *Chapter II: literature review.*

It is a movement analysis system that describes movement qualities and associated with movement development, self feelings and relationships. The student researcher has studied movement observation and nonverbal behavior training in over 60 hours of LMA based course work, plus a 30-hour course in the KMP taught by Dr. Janet Kestenberg Amighi and Suzanne C. Hastie, MA, both KMP experts. The addition of KMP assessment information was to indicate the participants’ individual feelings and the relationships between participant family members.

According to KMP theory, the movement qualities associated with needs are manifested in Tension Flow Rhythms; feelings and temperament are manifested in

Tension Flow Attributes; self-feelings are manifested in Bipolar Shape Flow; response to stimuli in the environment are manifested in Unipolar Shape Flow; and interaction with the physical environment is seen in directional movement and Shaping in Directions (Kestenberg Amighi, et al., 1999).

Conceptually, KMP can determine whether the interaction is empathy (shared Tension Flow) or trust (shared Shape-Flow). In healthy relationships there is an affinity between the Shape Flow and Tension Flow patterns that are used to support and enhance each other (Loman & Foley, 1996).

These parameters above were observed and described for both study dyads: Father J-Son J and Father K-Son K.

Interaction Synchrony

The interaction Synchrony includes *matching* and *meshing* behaviors (Condon, 1975, as cited in Knapp & Hall, 2002). “Interaction synchrony can manifest itself through matching behavior-similar behavior occurring at the same time (postural congruence or motor mimicry) or similar behavior occurring in sequence (one speaker raises his or her voice” (Knapp, & Hall, 2002, p. 285).

Matching. It may occur in several different ways.

(a) Compensatory (offsetting) behavior: If a speaker is leaning toward a listener, and the listener perceives the interaction distance to be too close, the listener

is likely to lean back to increase the interaction distance;

(b) Exchange similar behavior (reciprocal behavior): This is the opposite of compensatory behavior. When the listener viewed the speaker's behaviors as positive, the reciprocal behavior occurred. Either reciprocal behaviors or compensatory behaviors, these reactions are a mutual coordination of behavior.

(c) Postural congruence: Both interaction partners exhibit the same behavior at the same time.

(d) Mirroring: When the listener's behavior is a mirror image of the speaker's.

Meshing. It is of out-of-synchrony behaviors, which may reflect decreased listening or a lack of awareness of one's partner.

The student researcher observed and decided the interaction patterns between the father and the son in the family discussion sessions in terms of the above matching or meshing behaviors. These data were included in order to increase the authenticity of description overall and to complement the other observation data drawn from the NVFAS and KMP.

CHAPTER IV: RESULTS

Finding from each case will be presented separately. Cross case comparison will be integrated into the discussion chapter.

Family J

Background Information

The characteristics and immigration status of Family J are presented in Table 1. The participant father in Family J (Father J) is 60 years old. He was educated in Hong Kong and immigrated to the United States at the age of 40. At the time of the study, he had been in the United States for 20 years. He was a teacher with a high socioeconomic status. His immigrant status is late immigrant Chinese (LIC) in this study.

The participant son in Family J (Son J) is 20 years old and in college. He was born in Hong Kong, and he came with his family to the United States at the age of two. For this study, his immigrant status is classified as early immigrant Chinese (EIC).

General Ethnicity Questionnaire

Father J. The means of Father J's GEQC and GEQA rating scores were 3.92 (*SD* = 1.37) and 3.21 (*SD* = 1.52), receptively. Using the Paired *t*-Test (paired two samples for means with two-tail test significance, $p < .05$) to examine the difference between GEQC

and GEQA rating scores for Father J, the analysis showed a significant difference ($p < .05$) (see Table 2).

Table 1

Family J's Demographics

Variable	Father J	Son J
Age	60	20
Place of birth	Hong Kong	Hong Kong
Years of education in U.S.	19	14.5
Years in U.S.	20	18
Yearly income	>50,000	0

Table 2

Comparison of Father J's Cultural Orientation

Paired-*t Test*	GEQC	GEQA
Mean	3.92	3.21
Variance	1.37	1.52
Observations	38.00	38.00
Pearson *r* Correlation	-0.42*	
p two-tail	0.04**	
df	37.00	
t Stat	2.16	
t Critical two-tail	2.03	

Note. $*p < .005$. $**p < .05$.

The Pearson *r* correlation coefficient was also calculated for Father J's overall ratings between the GEQC and the GEQA. The result showed that being Chinese and being American were negatively correlated ($r = -.42$, $p < .005$) (see Table 2).

In Chinese culture domains of GEQC, the Activities factor ($M = 3$) was the lowest score. The Attitude factor ($M = 4.75$) was the highest score among these six factors (see Table 3).

Table 3

Family J's Specific Cultural Domains

	Father J	Son J
Chinese cultural domains		
Language	3.93	3.40
Social Affiliation	4.00	3.86
Activities	3.00	3.67
Attitudes	4.75	5.00
Exposure	4.00	4.50
Food	4.00	4.50
American cultural domains		
Language	3.58	4.08
Social Affiliation	2.17	3.33
Activities	2.75	4.25
Attitudes	3.00	3.60
Media	5.00	4.00
Food	3.50	3.50

In the American culture domains of GEQA, the Social Affiliation factor was the lowest score (*M* = 2.17), and the Activities factor (*M* = 2.75) was the second lowest score. The Media factor (*M* = 5) was the highest score among these six factors (see Table 3).

The findings from comparing the Chinese culture domains and American's showed that the scores of Social Affiliation and Attitude factors in Chinese cultural domains were higher than in American's (see Table 3).

An interesting finding was that on a scale rating from 1= *strongly disagree* to 5 = s*trongly agree*, Father J responded to the statement "Overall, I am Chinese" on a "5" point rating scale, and "Overall, I am American" was lower with a "3" point rating scale (see Table 5).

Table 4
Family J' Cultural Statement

	5- point scale	
Variable	Father J	Son J
" Overall, I am Chinese"	5	5
" Overall, I am American"	3	4

Note: one a 5-point scale, with 1 = *strongly disagree*, 5 = *strongly agree.*

Son J. The means of Son J's GEQC and GEQA rating scores were 3.84 (*SD* = 1.11) and 3.84 (*SD* = 0.79), respectively. The Paired *t*-Test described above was used to

examine the difference between GEQC and GEQA rating scores for Son J. The result showed an insignificant difference ($p > .05$) (see Table 5).

Table 5
Comparison of Son J's Cultural Orientation

Paired-*t* Test	GEQC	GEQA
Mean	3.84	3.84
Variance	1.11	0.79
Observations	38.00	38.00
Pearson *r* Correlation	0.23	
p two-tail	1.00	
df	37.00	
t Stat	0.00	
t Critical two-tail	2.03	

The Pearson *r* correlation coefficient was also calculated for Son J's overall ratings between the GEQC and the GEQA. The result showed that being Chinese and being American were not significantly correlated ($r = .23$, $p > .05$) (see Table 5).

In the Chinese culture domains of GEQC, the Language factor ($M = 3.4$) was the lowest score and the second lowest score was the Activities factor ($M = 3.67$). The Attitudes factor ($M = 5$) was the highest score among these six factors (see Table 3).

In American culture domains of GEQA, the Social Affiliation factor was the

lowest score (*M* = 3.3); the second lowest score was the Attitudes factor (*M* = 3.6). The Activities factor (*M* = 4.25) was the highest score among these six factors (see Table 3).

The findings from comparing the Chinese culture domains and American's showed that the scores of Social Affiliation, Attitude and Exposure factors in Chinese cultural domains were higher than in American's (see Table 3). However, the scores of Language and Activities factors in American cultural domains were higher than in Chinese's.

Interestingly, on a scale rating from 1= *strongly disagree* to 5 = s*trongly agree*, Son J responded to the statement "Overall, I am Chinese" on a "5" point rating scale, and "Overall, I am American" was slightly lower with a "4" point rating scale (see Table 4).

Comparing Father J's and Son J's cultural orientation. The result of *Paired t*-Tests comparing the GEQC scores between Father J (*M* = 3.92) and Son J (*M* = 3.84) showed an insignificant difference ($p > .05$) (see Table 6). In addition, Father J and Son J had the highest score in the Attitudes factor than in the other factors in Chinese culture domains (see Table 3).

The results of the GEQA revealed a significant difference between Father J (*M* =3.21) and Son J (*M* = 3.84) ($p < .05$) (see Table 7). In regards to the American cultural domains, Son J had higher scores both in the Social Affiliation (*M* = 3.33) and Activities factors (*M* = 4.25) than did Father J (*M* = 2.17, 2.75, respectively) (see Table 3).

Table 6

Comparison of Chinese Cultural Orientation in Family J

	GE QC	
Paired-*t* Test	Father J	Son J
Mean	3.92	3.84
Variance	1.37	1.11
Observations	38.00	38.00
Pearson *r* Correlation	0.43	
p two-tail	0.69	
df	37.00	
t Stat	0.41	
t Critical two-tail	2.03	

Table 7

Comparison of American Cultural Orientation in Family J

	GE QA	
Paired-*t* Test	Father J	Son J
Mean	3.21	3.84
Variance	1.52	0.79
Observations	38.00	38.00
Pearson *r* Correlation	0.55	
p two-tail	0.00*	
df	37.00	
t Stat	-3.71	
t Critical two-tail	2.03	

*$p < .05$

Summary. Father J's cultural orientation was more Chinese than American. For Father J, being Chinese and being American were negatively correlated. Son J's cultural orientation were equally Chinese and American. For Son J, being Chinese and being American were not significantly correlated.

Overall, both Father J and Son J were proud of being Chinese and preferred to be socially affiliated more with Chinese people and less with American people. Father J was less socially affiliated with Americans and participated less in American activities, yet he preferred to assess the media in English (e.g. TV, film and radio). Son J was more American oriented than Father J; he had participated more in American activities and less in Chinese activities. Although he spoke the Chinese language less than did his father, Son J preferred exposure to Chinese culture (e.g. "I am familiar with Chinese cultural practice and customs").

FACES IV

The results of the FACES IV for Father J and Son J are showed in Table 8.

Father J considered his family very connected (69%) and very flexible (75%); Son J viewed his family connected (60%) and very flexible (65%). However, Son J's *Unbalanced Enmeshed* score (36%) and *Unbalanced Rigid* (75%) score were higher than Father J's (15%, 30%, respectively). Especially, there was an obvious difference

on their *Unbalanced Rigid* scores. The *Family Communication* Score also showed a greater difference between Father J (65%) and Son J (36%). According to the *Circumplex Total Ratio* for classifying the *family type*, the perception of Father J's family type was a *Balanced* family*;* Son J's was a *Rigidly Cohesive* family. The results of the *Circumplex model* graph drawn from the FACES IV six scores are shown in Figure 4 for Father J and Figure 5 for Son J.

Family J's Profile. The profile is designed to plot the six *FACES IV* scale*s* along with the *Family Communication* and *Family Satisfaction* scales showed in Figure 6.

Table 8
The FACES IV Data for Family J

Dimension	Father J	Son J
Balance score		
Balance Cohesion	69%	60%
Balance Flexibility	75%	65%
Unbalance score		
Disengaged	30%	26%
Enmeshed	15%	36%
Chaotic	15%	20%
Rigid	30%	75%
Family Communication	65%	36%
Family Satisfaction	58%	45%
Ration score		
Cohesion	2.07	1.56
Flexibility	2	1.06
Circumplex Total	2.04	1.31
Family Type	Balanced	Rigidly Cohesive

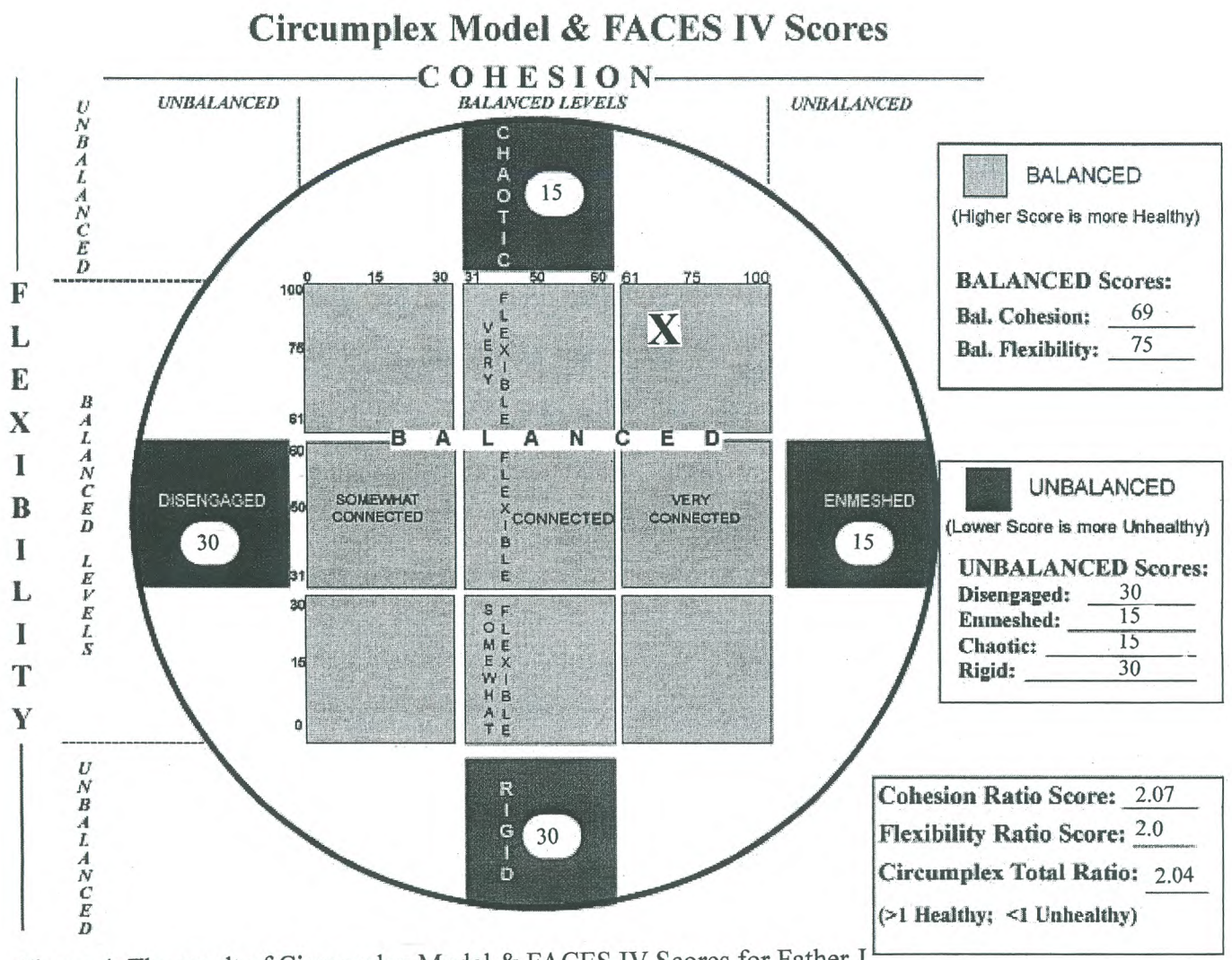


Figure 4. The result of Circumplex Model & FACES IV Scores for Father J

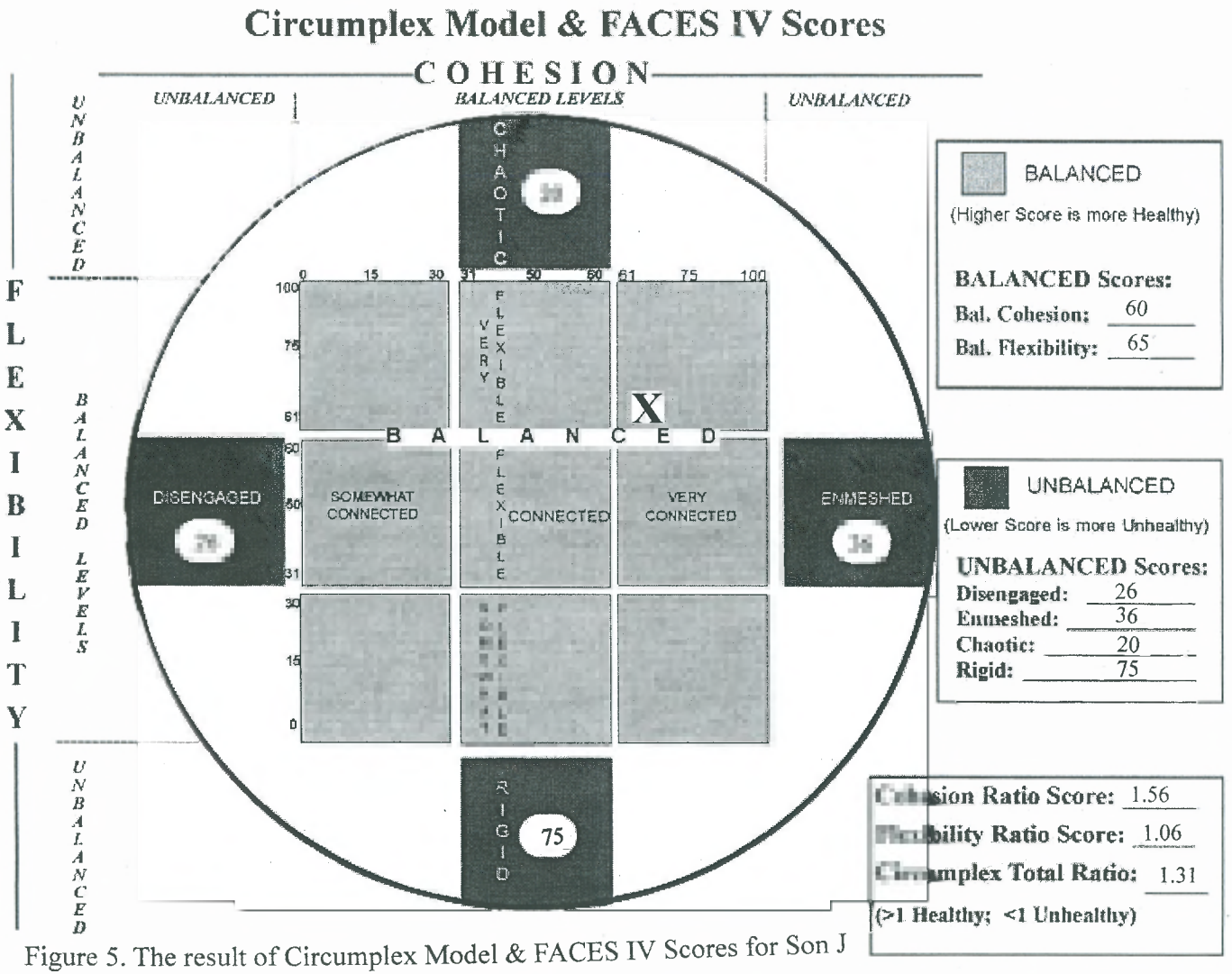


Figure 5. The result of Circumplex Model & FACES IV Scores for Son J

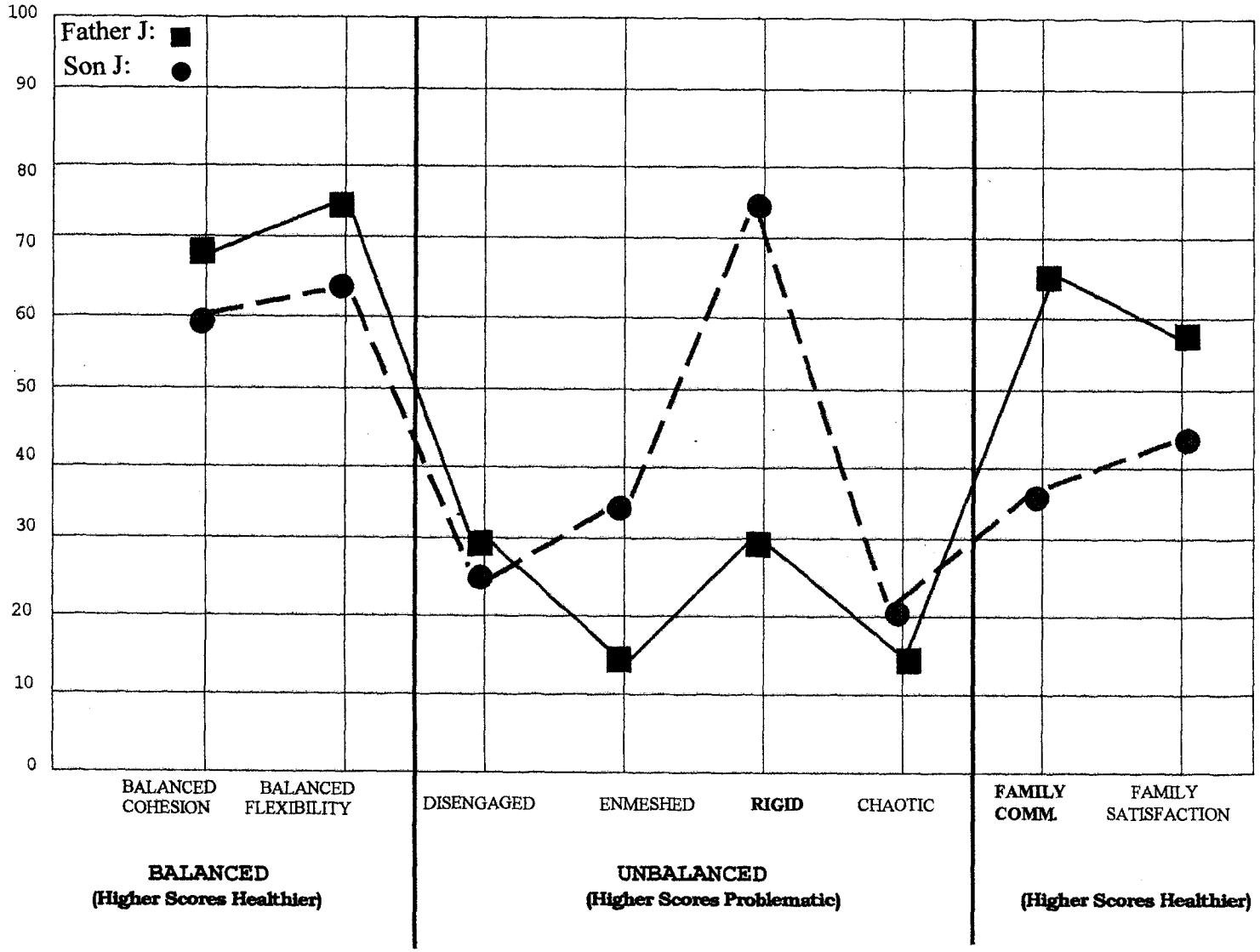


Figure 6 FACES IV Profile: Family J

NVFAS and KMP-based Observation

The nonverbal interaction between Father J and Son J was videotaped for rating with the NVAFS and KMP-based observation. The tape was edited into three sections with each one lasting six to seven minutes. Father J and Son J discussed three questions without any interruption. The list of questions was provided before discussion session. The raters identified the nonverbal interaction patterns observed between Father J and Son J, as well as the movement frequency and the movement parameters for each. The results reveal the characteristic style of interaction in the Family.

At the beginning of the first section, Father J held the list of questions and sat facing Son J but at a 45 degree angle. His upper torso was slightly bulging backward with a ball-round shape body attitude, and his legs crossed at the knee. Son J sat straight in the chair and put his finger on his chin (i.e. resting or home-base position) without any eye contact with Father J.

The interaction frequency of Family J is shown in Table 9. Father J's movement frequency was 90 in a 20-minute discussion, and it was 3.16 times that of Son J (90/ 28.5). Father J's movements included both postural shifts and hand gestures; the hand gestures were directed either toward or away from Son J. Son J's movement frequency was only 28.5 times in the 20-minute discussion.

Table 9

The Result of NVFAS: Interaction Frequency for Family J

	Section 1	Section 2	Section 3	Total
Father J's action				
G > Son J	20	10.5	13.5	44
G < Son J	3	3	10	16
G < Self	5	0	0	5
G > Object	0	2	1	3
G	0	0	11	11
P/G	0	4	0	4
P/G < Son J	0	0	1	1
P > Son J	0	1	0	1
P shift	1	1	3	5
Total	29	21.5	39.5	90
Son J's Action				
G > Father J	1	4	3.5	8.5
G < Father J	0	0	1	1
G < Self	0	4	0	4
G > object	0	0	10	10
P/G > Father J	0	1	3	4
P shift	0	0	1	1
Total	1	9	18.5	28.5

Note. G : Gesture, G > : Gestord toward, G < : Gesture away, P/G <: Posture/ Gesture away, P/G >: Posture/ Gesture toward, P >: Posture toward, P shift: Postural shift.

Family J’s movement profile is showed in Table 10. Father J’s movement repertoire included the Effort elements as follows: Space- Direct and Indirect, Time- Sudden and Sustained, Flow- Bound and Free, and Weight- only Light element. Generally, his predominant movement qualities were Sudden, Light and Flexible (i.e. a Pre-Effort of Indirect element in KMP). Son J’s movement repertoire included the

Effort elements as follows: Space- Direct, Time- Sudden, Weight- Strong and Flow-Bound. His predominant movement qualities were Strong, Bound and Sudden. Note that Son J only combined two Effort elements as his predominant movement qualities, whereas Father J usually combined three elements.

Table 10

Movement Profile of Family J

Movement parameter available	Father J	Son J
Space	Direct Indirect	Direct
Weight	Light	Strong
Time	Sudden Sustain	Sudden
Flow	Bound Free	Bound
Predominant movement qualities	Light Sudden Flexible	Strong Sudden Bound
Use of Effort in Combination	Combination of three elements	combination of only two elements

Father J's torso was mobile. He exhibited self-touch behaviors in that he brushed his mouth six times, his head three times and his nose five times. Father J's facial expression was pleasant, and he smiled five times in the conversation. When Father J was asking Son J questions, he continued to look at Son J as the questions

were answered.

Son J's torso was both constricted and immobile. He crossed his arms at his chest and maintained a tense body attitude with Bound Flow. When Father J asked him questions, he turned his head slightly up and looked far away from Father J with little eye contact; he nodded or shook his head slightly while listening. Throughout the discussion session, Son J frequently tapped his chin with snapping rhythm, as well as crossed his ankles and constantly bounced his heels up and down in a low intensity motor discharge.

Regarding the interaction pattern, Father J looked at Son J all the time and made gestures approximately ten times directly toward Son J, whereas Son J gestured his hand back to Father J only once or twice during this period of time. Then, Son J instantly returned to his home-base position. This disengagement took place five times throughout the conversation.

However, their interaction dynamic changed after Son J took the list of questions in his hand at the third section. In this 8-minute conversation, the frequency of Father J's gesture increased to 24.5, but Son J's was only 4.5. Note that Son J gestured toward an object (the list of questions) 10 times, and the frequency of his posture movement toward Father J was increased to 3. Son J held his body straight and kept his head up for a long period of time when Father J guided this conversation

by using the list of questions in his hand. However, after Son J took turns to hold the list of questions, he shifted his posture and even leaned forward at a 20 -30 degree angle toward Father J three times in the last section.

The data from KMP-based observation is shown in Table 11. For the Tension Flow Rhythms, Father J's hand gestures moved with Running/Drifting rhythm, and he sometimes moved his shoulders with Twisting Rhythm during the conversion. The Running/Drifting and Twisting Rhythm are indulging rhythms in KMP. Son J tapped his one finger on his chin and repetitively discharged his feet with Snapping Rhythm. He also gestured his hand with the Spurting rhythm. The Snapping and Spurting rhythms are fighting rhythms in KMP.

Table 11

The KMP Data for Family J

Components	Father J	Son J
System I		
Tension Flow Rhythms	Twisting	Snapping
	Running/Drifting	Spurting
Tension Flow Attributes	Low Intensity	High Intensity
	Graduality	Abruptness
Movement quality	Indulging	Fighting
System II		
Unipolar Shape Flow	Medial Narrowing	Medial Narrowing
Bipolar Shape Flow	Bulging Backward	Lengthening
Shaping in Directions	Sideways, Cross, Forward, Backward	Sideways, Up, Down Forward, Backward

For the Tension Flow Attributes, Son J expressed a fighting movement with high intensity abruptness. For example, he snatched the list of questions from Father J's hand at the start of the third section. Conversely, Father J exhibited an indulging movement with low intensity graduality.

For the Shape Flow aspects, Father J and Son J's movements included Unipolar Shape Flow observed in their self-touch behaviors. Father J's upper torso was slightly bulging backward with the Bipolar Shape Flow. Son J also showed the Bipolar Shape Flow by narrowing and lengthening his upper torso during the conversation.

Finally, regarding the Shaping in Directions, Father J gestured to his side with an arc-like movement and periodically crossed his hand to brush his mouth and to touch his nose. He crossed his arms and legs, and moved his head and upper torso forward and backward. Similarly, Son J's gestures in directional movement were very similar to Father J's described above. However, Son J gestured his hands not only to the side in the horizontal dimension, but also directly toward Father J in the sagittal dimension. His hand gestures were in an abrupt, quick, and spoke-like directional movement. He moved his head up and down and often raised his eyebrows.

For Family J, the father and the son used contrasting rhythms: indulging types (Father J) versus fighting types (Son J), and also displayed the clashing in their

Tension Flow Attributes: low intensity graduality (Father J) versus high intensity abruptness (Son J).

The interaction synchrony can manifest itself through matching or similar behaviors occurring at the same time (Knapp, & Hall, 2002). In this case, their interaction behaviors were most likely asynchronous and not reciprocal.

In summary, combing the NVFAS data with the KMP-based observational data, it was evident that Father J worked very hard to engage in this conversation by making many gestures toward Son J, but he avoided Father J's eye contact, and maintained his home-base position all the time.

Summary

According to the Family J's responses to the GEQC and GEQA, the findings are described as follows:

1. Father J was more Chinese oriented than American. Being Chinese and being American were negatively correlated.
2. Son J's cultural orientation was equally Chinese and American. Being Chinese and being American were not significantly correlated.
3. Father J was less American oriented than Son J. He was less affiliated with American people, and participated less in American activities than did Son J.
4. Both Father J and Son J were proud of being Chinese.

According to the Family J's responses to the FACES IV questionnaire, the findings are described as follows:

1. Six scores: Father J and Son J had the same level in *Balance Flexible score*. For *Unbalance scores*, there was an obvious difference in their *Unbalanced Rigid* scores.
2. Family type: Father J viewed his family as a *Balanced* type; Son J perceived his family as a *Rigidly Cohesive* type.
3. *Family Communication* and *satisfaction*: Father J's both scores were higher than Son J's; especially, their *Communication* score was incongruent.

According to the observational data from NVFAS, the findings are described as follows:

1. Father J's movement frequency was greater than Son J's.
2. Father J' movement was mobile and flexible; Son J's movement was immobile and bound.
3. Father J's movement qualities were more indulging, whereas Son J's were more of fighting type.
4. Their interaction pattern suggested a repetitive disengagement with little eye contact and asynchronous (i.e. without reciprocal behaviors).

Synthesis of case data

Three main results were drawn from the above findings. First, it is evident that Family J had an acculturation gap between Father J and Son J. Second, there was a greater gap showed in their *Unbalanced Enmeshed* and *Unbalanced Rigid* scores. Finally, their nonverbal interaction patterns revealed a mismatch in their predominant movement qualities and disengagement in their interactive movement patterns.

Hwang (2006) developed a theoretical construct called *Acculturative Family Distancing (ADF)* as described in *Chapter II: Literature Review.* ADF occurred between immigrant parents and their children due to their acculturation gap and miscommunication. In this case with respect to acculturation gap, Son J is not only more American orientated than his father, but he also affiliated with American people and participated in American activities more than did his Father. This gap may not be discovered under their congruence in Chinese culture at home due to Father J is more Chinese orientated.

Son J only combined two Effort elements as his predominant movement qualities, whereas Father J usually combined three elements. In Laban's classification, the combination of two movement qualities indicates "inner attitudes, mood or states" and this is also observable in transitions between actions. "The combination of three movement qualities brings about more intense and pronounced movement

expressions" (Maletic, 1987, p. 102). Three Effort combinations characterize Father J's behavior in the conversation session.

Father J presented more hand gestures toward Son J, but their interactions were asynchronous and not reciprocal. Not only were their movement qualities opposite (indulging type in the father versus fighting type in the son), but also there was a clashing relationship in the Tension Flow Attributes (low intensity graduality in the father versus high intensity abruptness in the son). Not only did the FACES IV data exhibited the mismatch in their different perspectives of the family types, *Balanced* (the father) versus *Rigidly Cohesive* (the son), but also there was incongruence in their *family communication* scores. Thus, the FACES IV data combined with the observational data elicited the whole picture of how the acculturation gap may impact Family J's interaction behaviors.

Moreover, their different perceptions about the family communication were differentiated in the FACES IV profile. The different communication styles can lead to misunderstanding. In addition, more acculturated children are often more liberal in communication style than their less acculturated and more traditional parents (Hwang, 2006). In this case, Father J's communication style was more verbally direct and expressive than his son. Conversely, Son J' seemed more restrained in facial and verbal expression.

Their responses to the *Unbalanced Enmeshed* score were also at different levels. Father J's score was lower than his son's score, even though they were all in the low level. However, the different level between Father J and his son may also reveal their disengaged relationship: Father J may need more closeness in the relationship, but his son felt that there was too much closeness in family. Thus, acculturation differences between parents and their children may influence family functioning (Crane, Ngai, Larson, & Hafen, 2005). This different concept may come from the difference value system. Western culture emphasizes the individualism, but Asian culture draws attention to the familialism, which is related to a strong attachment within nuclear and extended families (Marín & Gamba, 2003).

The movement frequency and interaction patterns in their conversation also revealed the distance and incongruence in their relationship. This was evident in their repetitive disengagement interaction pattern. It seemed likely that Father J intended to be closer to his son, but Son J did not respond in the same way. Rather, he kept his upper torso straight and even avoided eye contact with his father.

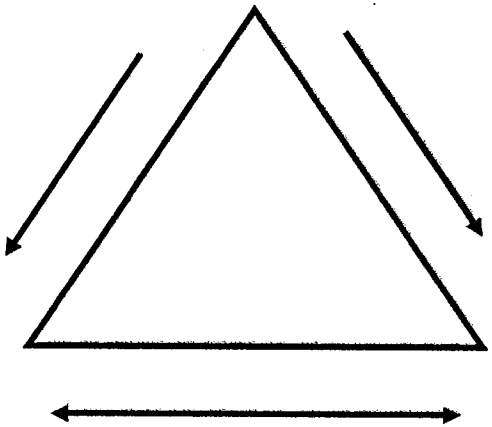
Son J rated the *Unbalanced Rigid* score much higher than did his father. This distance was also present in their different movement quality: Father J's movement was mobile with more facial expression, whereas Son J's movement was immobile and restrained. From the acculturation viewpoint, the most acculturated children are

often more liberal in communication than their less acculturated parents (Hwang, 2006). However, Father J's communication style was more direct and expressive than his son's. Hence, from the cultural viewpoint, Son J may need more freedom (which is emphasized in Western culture), but his family may be very Chinese oriented in disciplining children to be submissive. Accordingly, Son J's perception about his family was too rigid.

As mentioned in the *Chapter II: literature view,* filial piety requires children to behave with absolute obedience and selfless devotion toward their parents (*xiao).* When a father exercises an absolute authority over his son, it is reinforced as *xiao,* filial piety, in Confucian virtue (King & Bond, 1982). Therefore, from their interaction patterns, a possible manifestation of this in the nonverbal interaction is seen when Son J held the home-base position and nodded his head while listening to his father for a very long period. This obedience is encouraged in Chinese culture. However, Son J's taking the list of questions seemed to represent his autonomy and independence to lead the conversation, and this may represented his westernized orientation. In this study, the conflict appeared evident in Son J's behavior.

Finally, for Family J, the different movement patterns and qualities between the father and the son supported the results of GEQ and FACES IV to complete the holistic assessment. Their relationships are presented in Figure 7.

Acculturation Gap (GEQC & GEQA)



Opposite & Clashing

Movement quality (NVFAS)

Asynchronous & disengagement

Interaction Patterns (KMP-based data)

Different perceptions in

Family Rigidity &

Family Type

(FACES IV)

Figure 7 Synthetic data for immigrant Family J

Family K

Background information

The characteristics and immigration status are presented in Table 12. The participant father in the Family K (Father K) is 54 years old. He was educated in China and immigrated to the United States at the age of 37. He has been in United States for 17 years. He lived in Canada and his son was born there before immigrating to Philadelphia. He is a businessman with a high socioeconomic status. His immigrant status is classified as late immigrant Chinese (LIC) in this study.

The participant son in Family K (Son K) is 18 years old and will enter college in his academic year. He was born in Canada and came with his family to the United States at the age of five. Because Canada is located in North American and shares most of the cultural and linguistic qualities with the United States, Son K's cultural orientation most likely was influenced by Western culture just as the American-born Chinese (ABC). His immigrant status therefore was classified as ABC in this study.

Table 12
Family K's Demographics

Variable	Father J	Son J
Age	54	18
Place of birth	China	Canada
Years of education in U.S.	7	11
Years in U.S.	17	13
Yearly income	?	0

General Ethnicity Questionnaire

Father K. The means of Father K's GEQC and GEQA rating scores were 3.71 (*SD* = 1.67) and 3.79 (*SD* = 1.74), respectively. The Paired *t*-Test described above was used to examine the difference between GEQC and GEQA rating scores for Father K. The results showed an insignificant difference ($p > .05$) (see Table 13).

The Pearson *r* correlation coefficient was also calculated for Father K's overall ratings between the GEQC and the GEQA. The result showed that being Chinese and being American were positively correlated ($r = .29$, $p < .05$) (see Table 13).

In the Chinese culture domains of GEQC, the Activities factor (*M* = 2.33) was the lowest score. Both the Attitude (*M* = 4.5) and Food factors (*M* = 4.5) were the highest scores among these six factors (see Table 14).

Table 13

Comparison of Father K's Cultural Orientation

Paired-*t Test*	GEQC	GEQA
Mean	3.71	3.79
Variance	1.67	1.14
Observations	38.00	38.00
Pearson *r* Correlation	0.29*	
p two-tail	0.73	
df	37.00	
t Stat	-0.34	
t Critical two-tail	2.02	

*$p < .05$.

Table 14

Family K's Specific Cultural Domains

	Father K	Son K
Chinese cultural domains		
Language	3.67	2.87
Social Affiliation	3.71	3.71
Activities	2.33	1.00
Attitudes	4.50	4.00
Exposure	4.00	3.75
Food	4.50	5.00
American cultural domains		
Language	4.25	4.75
Social Affiliation	3.00	3.67
Activities	4.00	5.00
Attitudes	3.60	4.20
Media	3.33	5.00
Food	3.00	3.50

In the American culture domains of GEQA, both the Social Affiliation and Food factors were the lowest scores (*M* = 3, 3, respectively), and the Media factor was the second lowest score (*M* = 3.3). However, the Language factor (*M* = 5) was the highest score among these six factors (see Table 14).

The findings from comparing the Chinese culture domains and American's showed that the scores of Language and Activities factors in American cultural domains were higher than in Chinese's (see Table 14).

Especially, on a scale rating from 1= "*strongly disagree*" to 5 = "*strongly agree*", Father K rated "strongly agreed" (rating scale at "5" point) on both the GEQC and GEQA: "Overall, I am Chinese" and "Overall, I am American" (see Table 15).

Table 15
Family K's Cultural Statement

	5- point scale	
Variable	Father K	Son K
" Overall, I am Chinese"	5	4
" Overall, I am American"	5	5

Note: one a 5-point scale, with 1 = *strongly disagree*, 5 = *strongly agree.*

Son K. The means of Son K's GEQC and GEQA rating scores were 3.24 (*SD* = 2.44) and 4.5 (*SD* = 0.8), respectively. The Paired *t*-Test described above was used to

examine the difference between GEQC and GEQA rating scores for Son K. The analysis showed a significant difference ($p < .05$) (see Table 16).

Table 16
Comparison of Son K's Cultural Orientation

Paired-*t* Test	GEQC	GEQA
Mean	3.24	4.50
Variance	2.40	0.80
Observations	38.00	38.00
Pearson *r* Correlation	-0.26*	
p two-tail	0.00	
df	37.00	
t Stat	0.00*	
t Critical two-tail	2.03	

*$p < .05$.

The Pearson *r* correlation coefficient was calculated for Son K's overall ratings between the GEQC and the GEQA. The result showed that being Chinese and being American were negatively correlated ($r = - .26$, $p < .05$) (see Table 16).

In the Chinese culture domains of GEQC, the Activity factor ($M = 1$) was the lowest score and the Language factor ($M = 2.87$) was the second lowest score. The Food factor ($M = 5$) was the highest score and the Attitude factor was the second highest score among these six factors (see Table 14).

In American culture domains of GEQA, the Food factor (*M* = 3.5) was the lowest score, and the second lowest score was the Social Affiliation factor (*M* = 3.67). Both the Media (*M* = 5) and the Activities factors (*M* = 5) were the highest scores among these six factors (see Table 14).

The findings from comparing the Chinese culture domains and American's showed that the scores of Language, Activities, Attitude and Media factors in American cultural domains were higher than in Chinese's. The score of Social Affiliation factor was equally in Chinese's (*M* = 3.71) and American cultural domain (*M* = 3.67). In other words, Son K preferred to be socially affiliated with both Chinese people and American people. However, the score of Attitude factor in American cultural domains was slightly higher than in Chinese's (see table 14).

Interestingly, on a scale rating from 1= *strongly disagree* to 5 = s*trongly agree*, Son K responded to the statement "Overall, I am Chinese" on a "4" point rating scale, and "Overall, I am American" was slightly higher with a "5" point rating scale (see Table 15).

Comparing Father K's and Son K's cultural orientation. Using the Paired *t*-tests described above, the result from comparing the GEQC scores between Father K (*M* = 3.71) and Son K (*M* = 3.24) showed an insignificant difference ($p > .05$) (see Table 17). Regarding the results in the Chinese culture domains, Son K rated a lower Language score than did Father K; both Father K and Son K had a higher level in the Attitude factor and a

lower level in the Activities factor (e.g. participation in Chinese activities) than in the other factors.

Table 17
Comparison of Chinese Cultural Orientation in Family K

	GE QC	
Paired-*t* Test	Father K	Son K
Mean	3.71	3.24
Variance	1.67	2.40
Observations	38.00	38.00
Pearson *r* Correlation	0.43	
p two-tail	0.07	
df	37.00	
t Stat	1.90	
t Critical two-tail	2.03	

The results from comparing the GEQA scores between Father K (M = 3.79) and Son K (M = 4.5) revealed a significant difference ($p < .05$) (see Table 18).

Regarding the results of the American cultural domains, Son K participated more in American activities and preferred to have more English media than did his father. The score of Attitudes factor also showed an obvious gap between Son K (M =4.2) and Father K (M =3.6). Interestingly, they both rated lower scores on the Social Affiliation factor.

Table 18

Comparison of American Cultural Orientation in Family K

	GE QA	
Paired-*t* Test	Father K	Son K
Mean	3.79	4.50
Variance	1.14	0.80
Observations	38.00	38.00
Pearson *r* Correlation	0.54	
p two-tail	0.00*	
df	37.00	
t Stat	-4.58	
t Critical two-tail	2.03	

*$p < .05$.

Summary. The cultural orientation of Father K was equally Chinese and American. For Father K, being Chinese and being American were positively correlated. The cultural orientation of Son K was more American than Chinese. For Son K, being Chinese and being American were negatively correlated. Overall, Son K was more American oriented and less Chinese oriented than Father K.

Father K and Son K did not vary significantly on these six Chinese cultural domains. However, they varied significantly on the following two American cultural domains: Activities and Media. Although their scores on proficiency in English were

higher than in Chinese, they reported lower scores in social affiliation with American people than with Chinese.

FACES VI

The results of the FACES IV of Father K and Son K are shown in Table 19.

Table 19
The FACES IV Data for Family K

Dimension		Father K	Son K
Balance score			
	Balance Cohesion	35%	30%
	Balance Flexibility	55%	30%
Unbalance score			
	Disengaged	40%	40%
	Enmeshed	34%	14%
	Chaotic	30%	13%
	Rigid	55%	45%
Family Communication		28%	10%
Family Satisfaction		71%	12%
Ration score			
	Cohesion	1.25	1.55
	Flexibility	1.12	1.19
	Circumplex Total	1.18	1.37
Family Type		Midrange	Rigidly Cohesive

Father K saw his family as connected (35%) and flexible (55%), while Son K viewed his family as somewhat connected (30%) and flexible (30%). Father K rated

Balanced Flexibility in a moderate level, but Son J rated it at a low level. Son J's *Unbalanced Enmeshed* (14%) and *Unbalanced Chaotic* (13%) scores were lower than Father K's (34%, 30%, respectively). For *Family Communication* and *Satisfaction* scores, both of Father K's scores were higher than Son K's scores, especially there was an obvious gap between their *Satisfaction* scores (71 % and 12%, respectively).

Overall, the family type of Family K was reported as a *Midrange* type from Father K's perception and a *Rigidly Cohesive* type from Son K' opinion.

The results of the *Circumplex model* are shown in Figure 8 for Father K and Figure 9 for Son K. The Family K's profile is shown in Figure 10. It reveals a lower level both in *Balanced* and *Unbalanced* scales.

NVFAS and KMP-based Observation

The nonverbal interaction between Father K and Son K was videotaped for rating with the NVAFS and KMP-based observation. The tape was edited into three sections, and each section lasted four to five minutes. The father and the son discussed three questions without any interruption. The list of questions was provided to family members before discussion. The videotaping environment was the same as for Family J. The raters also identified the nonverbal interaction patterns between Father K and Son K, as well as the movement frequency and the movement parameters for each. The results reveal the characteristic style of interaction in the Family.

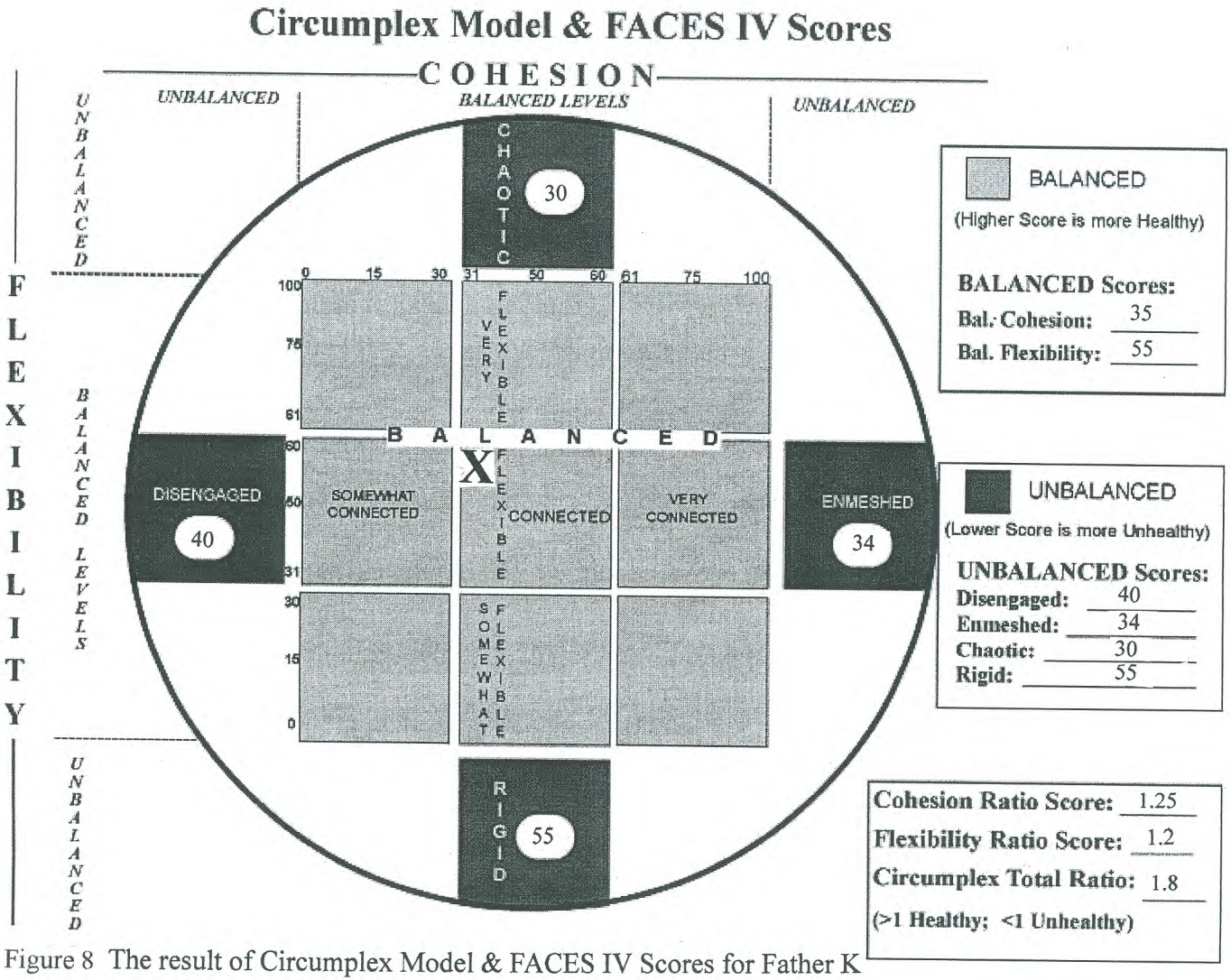


Figure 8 The result of Circumplex Model & FACES IV Scores for Father K

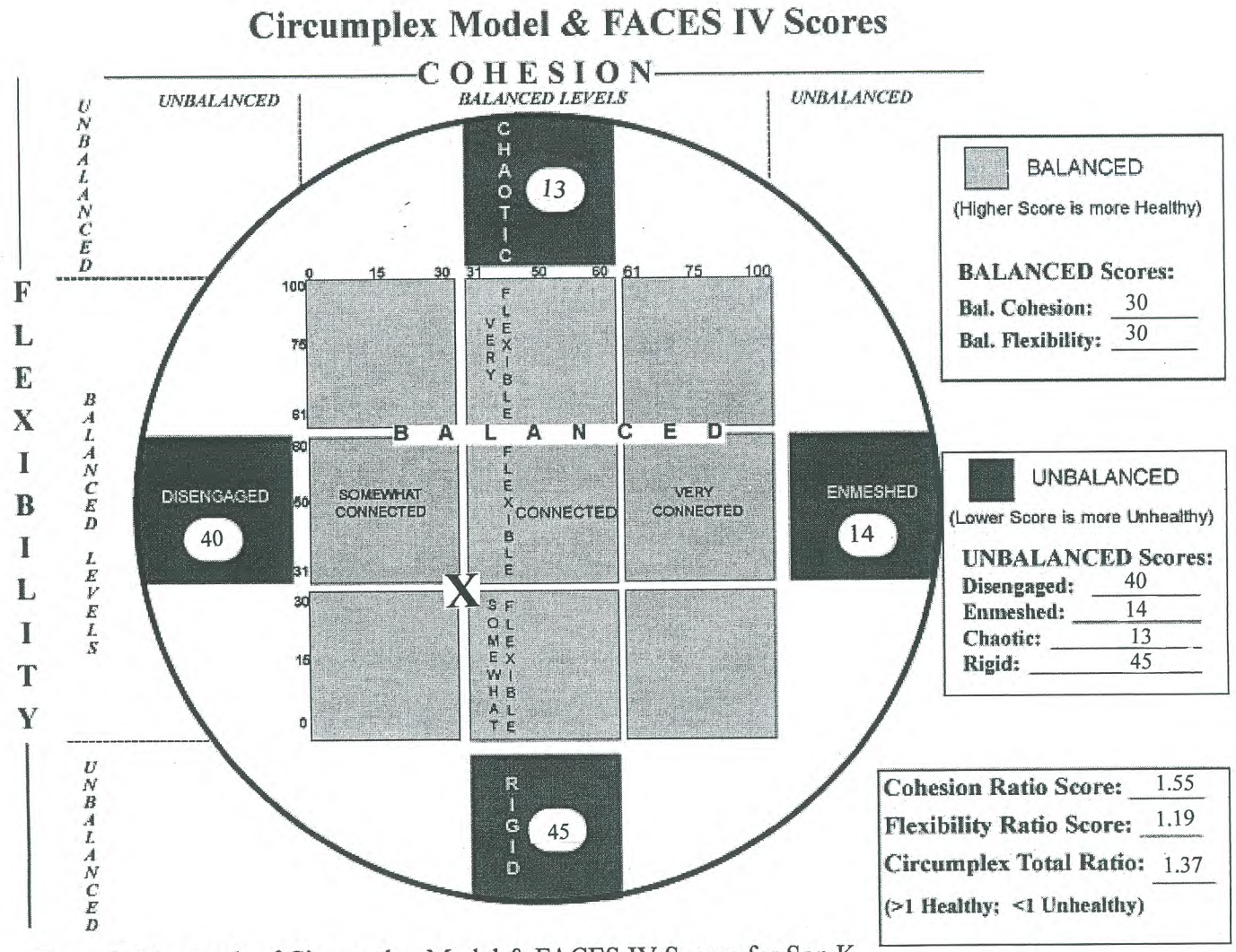


Figure 9 The result of Circumplex Model & FACES IV Scores for Son K

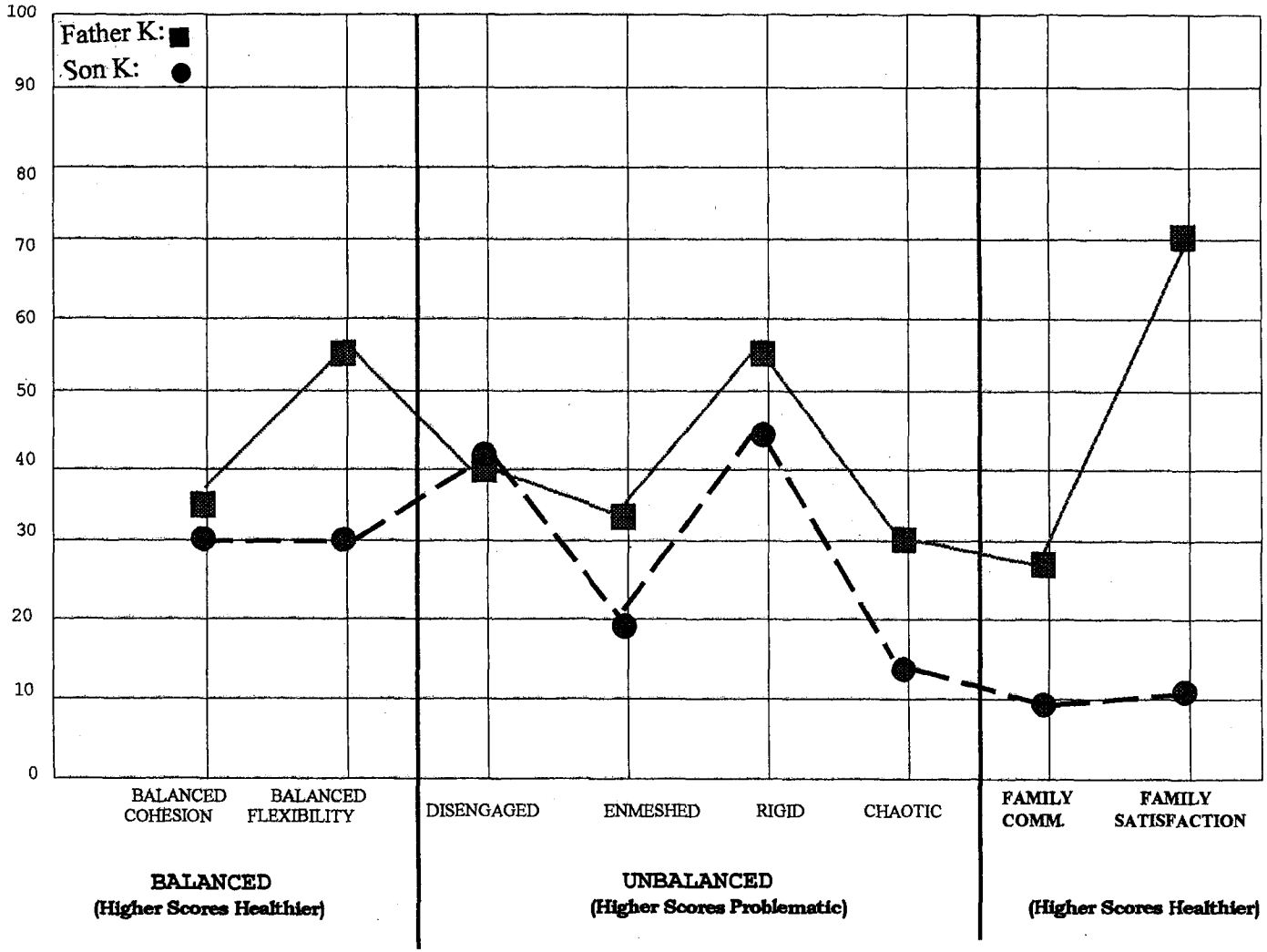


Figure 10 FACES IV profile: Family K

At the beginning of the first section, Father K held the list of questions and sat facing Son K but at a 45 degree angle with his right leg crossed at the knee (a blocked sitting position toward Son K). Son K presented a concave sitting position and crossed his hands on the knee (no accommodation with Father K). They then both shared the same focus on the list of questions for a second. When Father K asked the first question, Son K crossed his left leg at his knee (a mirroring position toward Father K) and smiled. Father K then leaned back to ask Son K questions. Son K's upper torso was slightly forward with a ball-round shape body attitude to respond to Father K.

The interaction frequency of Family K is shown in Table 20. It was noted that the movement frequency of Father K was 47, and Son K was 35 in the 14-minute discussion. Their movement patterns and preferences were different: Father K used almost entirely hand gestures (44), whereas Son K used both gestures (16) and postural shifts (19) in a balanced way.

Father K's upper torso was mostly immobile throughout the discussion session, except that he shifted his posture three times at the last section. He exhibited self-touch behaviors: he brushed his hair six times, and touched his nose three times. Son K's torso was mobile, and he often shifted his position. Note that at the second section he changed his position by crossing his right leg at his knee toward Father K.

Table 20

The Results of NVFAS: Interaction Frequency for Family K

	Section 1	Section 2	Section 3	Total
Father K's action				
G > Son K	1	7	8	16
G < Son K	3	2	0	5
G < Self	3	5	4	12
G > Object	0	0	1	1
G > Son K w/object	1	0	1	2
G	4	3	0	7
B/G > Son K	0	0	1	1
P shift	0	0	3	3
Total	12	17	18	47
Son K's action				
No Accommodation	1	1	0	2
G > Father K	1	2	2	5
G < Father K	0	0	0	0
G < Self	1	5	2	8
G	0	1	0	1
P shift < Father K	1	1	2*	4
P shift > Father K	1	0	2*	3
G/B > Father K	3	0	0	3
G/B < Father K	2	0	0	2
P shift	2	0	4	6
P < Father K	1	0	0	1
Total	13	10	12	35

Note. B/G > : Body/ Gesture toward, B/G < : Body/ Gesture away,
G: Gesture, G > : Gesture toward, G < : Gesture away, P <: Posture away,
P/G <: Posture/ Gesture away, P/G >: Posture/ Gesture toward, P >: Posture toward,
P shift: Postural shift.
* Upper torso shift

At the third section, Son K then put down his right leg and presented an open position toward his father; his upper torso also leaned toward and away from Father K

four times. Son K also exhibited self-touch behaviors by propping his head in a forward leaning position while listening or scratching his back while talking.

Family K's movement profile is showed in Table 21. Both Father K's and Son K's movement repertoire included all Effort elements. However, Father K displayed a preference for using the movement Effort qualities of Indirect (Space), Sudden (Time), Light (Weight) and Free (Flow), while Son K's predominant movement qualities were Indirect and Direct (Space), Light (Weight), Sustained (Time) and Bound (Flow).

Table 21
Movement Profile of Family K

Movement parameter available	Father K	Son K
Space	Direct	Direct
	Indirect	Indirect
Weight	Strong	Strong
	Light	Light
Time	Sudden	Sudden
	Sustained	Sustained
Flow	Free	Free
	Bound	Bound
Predominant movement qualities	Direct	Direct
		Indirect
	Light	Light
	Sudden	Sudden
		Sustained
	Free	Bound

Regarding interaction patterns, it was mentioned above that Father K was immobile in his upper torso, but he made gestures 44 times to communicate with Son K. Son K was mobile not only in his upper torso, but also changed his position with making hand gestures to communicate with Father K. When Father K was talking or asking questions, Son K nodded his head or smiled. In the first and second sections, echoing behaviors took place three times: touching hair, touching nose, and rotated feet. Father K and Son K either made eye contact or nodded heads to each other most of the time.

They exchanged similar behaviors in a reciprocal fashion during the discussion session. Three example exchanges, each of which occurred several times, were: (a) when Father K made a hand gesture, Son K made a body/gesture toward Father K; (b) Father K raised his hand to brush his hair, Son K at the same time raised his hand to scratch his back; and (c) Father K touched his hair while talking, Son K also touched his nose while listening.

There were also compensatory behaviors occurring in this conversation: (a) Father K made a hand gesture away from Son K, Son K then made a hand gesture toward Father K; (b) Father K made a hand gesture toward Son K, yet Son K shifted his position away from Father K; and (c) Son K's upper torso leaned forward to Father K, Father K then shifted his position. The matching behaviors also occurred:

Father K made hand gesture four times toward Son K; Son K then put down his leg and presented an open position toward Father K.

In summary, it was notable in this conversation that Father K and Son K had several patterns of shared and reciprocal behaviors.

The result of KMP-based observations is showed in Table 22.

Table 22
The KMP Data of Family K

Components	Father K	Son K
System I		
Tension Flow Rhythms	Snapping/Biting	Twisting
Tension Flow Attributes	Low Intensity Abruptness	Low Intensity Graduality
Movement quality	Fighting	Indulging
System II		
Unipolar Shape Flow	Medial Narrowing	Lateral Widening
Bipolar Shape Flow	Hollowing Backward	Bulging Backward
Shaping in Directions	Sideways, Cross, Forward, Backward	Sideways, Cross, Up, Down Forward, Backward

For the Tension Flow Rhythms, Father K's hand gestures were in Snapping/Biting rhythm. Son K sometimes moved his shoulders with Twisting Rhythm during the conversation. For the Tension Flow Attributes, Father K expressed a fighting quality with a Low Intensity Abruptness in his hand gestures. Conversely,

Son K displayed an indulging quality with Low Intensity Graduality in his hand gestures and postural shifts.

For the Shape Flows, Unipolar Shape Flow was observed in the self-touch behaviors of both: Father K brushed his hair and Son K scratched his back. Son K occasionally leaned forward with Unipolar Shape Flow. Regarding Bipolar Shape Flow, Father K‘s upper torso was hollowing backward to lean his back on the chair, while Son K was slightly bulging backward. Son K also exhibited Bipolar Shape Flow by widening and lengthening his upper torso during the conversation.

There appeared to be a reciprocal relationship between them in the use of Tension Flow Rhythms and Shape Flow: (a) Son K presented a more flexible twisting rhythm to adjust to Father K’s snapping/biting rhythm, (b) for the Unipolar Shape Flow, Son K performed lateral widening to match the medial narrowing exhibited by Father K, and (c) for the Bipolar Shape Flow, hollowing backward versus bulging backward performed by Father K and Son K.

Finally, in Shaping in Directions, Father K’s and Son K’s hand gestures were preformed in a spoke-like movement. Especially, Son K gestured his hands to the side in the horizontal dimension, and he did not gesture in the sagittal dimension toward Father K.

Summary

According to the Family K' s reports from the GEQC and GEQA , the findings are described as follows:

1. Father K's cultural orientation was equally Chinese and American. Being Chinese and being American were positively correlated.
2. Son K was more American orientated than Chinese. Being Chinese and being American were negatively correlated.
3. Son K was more American orientated than Father K. Father K had less exposure to American media, and participated less in American activities than did Son K.
4. Both Father K and Son K were proud to be American and Chinese.

According to Family K's reports from the FACES IV questionnaire, the findings are described as the follows:

1. Both Father K and Son K rated *Balanced Cohesion* on a low level. For *Unbalance* scores, an obvious difference showed on their *enmeshed* and *chaotic* scores.
2. There were two obvious gaps between Father K and Son K: the *Family communication* and the *Family Satisfaction* scores.
3. *Family Type*: Father K viewed his family as a *Midrange* type; Son K perceived his family as a *Rigidly Cohesive* type.

According to the observational data from NVFAS, the findings are described as follows:

1. Father K's movement preference was in hand gestures; Son K used both hand gestures and postural shifts in this conversation.
2. There was full eye contact and a number of shared behavior sequences during the discussion session.
3. Their interaction patterns included postural congruence, shared and reciprocal behaviors, as well as compensatory behaviors.
4. Father K' movement qualities would be categorized as fighting and Son K's as indulging.

Synthesis of case data

Three main results were drawn from the above findings. First, it was apparent that there was an acculturation gap between Father K and Son K, as well as a communication gap. Second, a great gap was shown in their different *Family Satisfaction* scores. Finally, their nonverbal interaction revealed postural congruence, shared behaviors and reciprocal interaction patterns, but there was a mismatch in their movement qualities, as well as a discrepancy between their nonverbal interaction data and the FACES IV data.

Research on sojourners, like Family K, who have been relocated internationally by their companies for the purpose of work for a period of time, acknowledges the family cross-cultural adjustment (Berry, 2003). Family K might have been placed for adjustments in Canada before they moved to the United States. Although Father K's cultural orientation is equally American and Chinese, yet there is still an acculturation gap between Father K and Son K, as shown in their different American cultural domain subscales.

The results showed that Son K was more American orientated and participated more in American activities than Father K. Also, Son K was less interested in participating in Chinese activities than his father. Although this acculturation gap existed, their communication style was harmonious. A harmonious intergenerational relationship is highly valued in Chinese families (King & Bond, 1985). According to the social and cultural context, a harmonious relationship with others significantly determines the well-being of Chinese people (Hsiao, et. al., 2006). From this perspective, Son K was more American oriented, but family conversation seemed to merge in keeping with Chinese values.

In the Chinese family, members are regarded in a hierarchical order by their generational and chronological age. For example, the father is given absolute authority over the Son, which is reinforced as *xiao*, filial piety, in Confucian virtue

(King & Bond, 1982). Especially, filial piety requires children to behave with absolute obedience toward their parents (*xiao).* In this case respect to hierarchical order and *xiao,* Father K seemingly did not present his authority toward Son K during the conversation. However, Father K was immobile in his upper torso, but Son K was mobile and leaned forward often. Focusing on their different body attitudes from the cultural standpoint, Father K's immobile upper torso seemed to express the traditional hierarchical order, rather than his direct authority. The Chinese student researcher perceived this unspoken message: "I am the father and should not lower my (sitting) position, but we can still communicate well." Son K, on the other hand, nodded his head to respond to his father's speaking, which was in keeping with Chinese value of submitting to the authority. Nevertheless, he also expressed more independence, autonomy, assertiveness, and open attitudes, which is emphasized in Western culture value system.

Son K's *enmeshed* and *chaotic* scores were lower than his father's. This self-report of *enmeshed* score may expose Son K's disengaged relationship in his family. He may need a closer relationship. The *chaotic* score may indicate a need for freedom in his family, based on the Western culture of individualism (Marín & Gamba, 2003).

There was a mismatch in predominant movement qualities between them: Father K's movement qualities were fighting, Son K's more indulging. But they shared the same quality of Effort elements-Light and Indirect-in their matching and reciprocal behaviors. The preceding section of interaction synchrony provided information about a speech-body movement coordination between the two speakers. Knapp and Hall (2002) stated that:

> Interaction synchrony, a social rhythm, can manifest itself through the matching behaviors-similar behaviors which occur at the same time (postural congruence or motor mimicry), or in sequence (one speaker raises his or her voice, followed by the next speaker raising his or her voice)
>
> (p. 285).

This explicates the matching behaviors exhibited in their conversation with Light and Indirect Effort qualities.

The matching behaviors, in this case, such as compensatory behaviors and postural congruence, occurred between Father K and Son K, as well as involved crossing the legs, leaning and head propping. These reactions suggest a mutual coordination of behaviors which exhibited in their opposite forms of the Unipolar Shape Flow and the Bipolar Shape Flow. For instance, medial narrowing (Father K) versus lateral widening (Son K), and hollowing backward (Father K) versus bulging

backward (Son K).

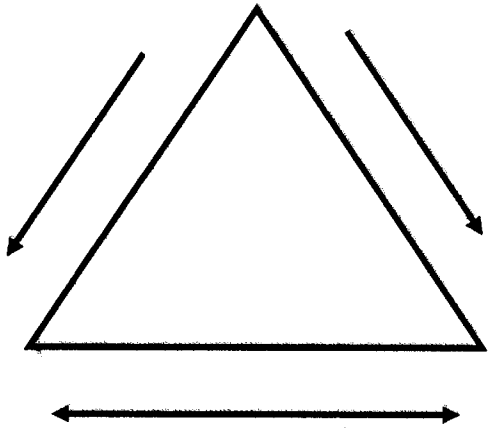
The movement frequency and interaction patterns in their conversation revealed the congruence of their relationship. It was evident that the gesture movement of Father K was exhibited more than his son. Son K often leaned his upper torso to approach his father during the conversation. It seemed that Son K intended to come closer to his father. Hence, their nonverbal interaction patterns revealed postural congruence, shared and reciprocal behaviors, as well as compensatory behaviors. Rather, they continually made eye contact and smiled to each other.

Even though the acculturation gap was most likely dismissed in Family K due to their similar American cultural levels, there were still great gaps shown in *Family Satisfaction* and *communication* scores. Their lively facial expressions and reciprocal interaction behaviors may compensate for these differences and distances. It seems likely that a dynamic and engaged interaction expresses: “we differ but we like each other and get along well.”

However, there was a discrepancy between their nonverbal interaction data and the FACES IV data in terms of *Communication* and *Satisfaction* scores. Since this is a pilot study using the GEQ and FACES IV in family systems, there is no published literature to support or refute conjecture or inference regarding how the acculturation gap influences family satisfaction in Chinese-American families.

Finally, the different movement patterns and qualities between the fathers and the sons supported the results of GEQ and FACES IV to complete the holistic assessment for Chinese immigrant family. For Family K, their relationships are presented in Figure 11.

Acculturation Gap (GEQC & GEQA)



Opposite Movement Qualities

Posture Congruence (NVFAS)

Shared & Reciprocal

Interaction Behaviors (KMP-based data)

Different perceptions in

Family Type & Communication

& Satisfaction (FACES IV)

Figure 11 Synthetic data for immigrant Family **K**

CHAPTER V: DISCUSSION

This study examined how individuals subjectively experience their acculturation process, which may ultimately affect family functioning. For assessment of family functioning, the combination of the self-report FACES IV questionnaire and the observational measurement, Clinical Rating Scale (CRS), are recommended to family research study (Olson, 2003). Drumm, Carr and Fitzgerald (2000) had assessed the sensitivity and specificity of CRS through videotaping using three different family functioning assessment models. However, they did not definitively assess all modes of communication, specifically nonverbal interaction patterns. Even though this combination enables clinicians to gather multiple views on family functioning—from both the insider and the outsider perspectives, there are currently no published assessments of nonverbal behavior specifically created for assessing intergenerational acculturation differences in immigrant families. For this reason, the student researcher in this study employed the combination from Olson's perception, but replaced the CRS with the NVFAS.

Regarding the acculturation gap, the intergenerational and intercultural conflict has been revealed to be associated with negative mental health consequences for both parents and their children (Ying, 1999). Ying and Tracy (2004) in their series of

acculturation studies recommended that future studies need to include both generations. Similarly, the researchers studying acculturation also supported this point that gaining information on parents' assessment would draw a fuller understanding of the intergenerational relationship (Ying, et. al., 2001). However, to date, none of the studies took into consideration those acculturation discrepancies between parents and their children on both the parents' side and children's side. This study, therefore, was a pilot observational case study of both parents and their children to examine the acculturation gap related to the family functioning along with their nonverbal interaction behaviors.

The hypothesis of four *acculturation strategies* (Berry, et al., 1989), as noted in *Chapter II: literature review*, may be assessed with each family member in this study. Son K, more American oriented than Chinese, participated more activities in American society (with higher scores of Language, Activities, and Media factors in American cultural domains) than in Chinese society (with lower scores of Language and Activities factors in Chinese cultural domains). The *acculturation strategy* of Son K may be viewed as an assimilation type. In contrast, Father J, more Chinese oriented than American, presented higher scores of Social Affiliation and Attitude factors in Chinese cultural domains than in American cultural domains. The *acculturation strategy* of Father J, therefore, may be evaluated as a separation type due to his holding on to his Chinese culture and participating less in American society. On the other hand, Father K and Son J, equally

Chinese and American oriented, may have an interest both in maintaining their Chinese culture and in interacting with Americans in their societies. Thus, the *acculturation strategies* presented by Father K and Son J may be assessed with an integration type.

Kouneski (2000) stated that the general limitations of a self-report questionnaire, such as FACES IV, have been well-documented. For example, it is common for family members to have different perceptions of the same questions. These convergent and divergent perspectives among family members are useful in clinical settings and for research analysis. On the other hand, family members may not accurately report their behaviors in a questionnaire. Therefore, in this mixed method collective study, it was essential to have a video method as an observational component in order to compare with the findings from questionnaires.

When videotapes were created, data analysis by using observational triangulation methods with sound-off was taken place not only to identify and describe participants' movement patterns, gestures and postures, but also to emphasize their nonverbal interaction patterns. Thus, the transcription of individual statement or dyadic dialogue was dismissed because of the analytical purpose of the study. In family discussion session, relevant information, contextual detail and key concept may require transcription to clarify ethnicity and family perception beyond the GEQ and FACES IV. In addition, the student researcher may conduct an

individual interview by asking questions, such as the degree of understanding the questionnaires and personal opinions about the questionnaires, to complete the holistic data collection in terms of cultural identity and the perception of a balanced family. It is recommended that transcription analysis be combined with nonverbal assessment in future mixed collective case study.

Limitation

This study had a number of limitations that should be addressed in future research. First, with regards to sampling, only the English language versions of recruitment flyer, scripted announcement read aloud. This was due to time constraints and the fact that a sufficient sample (N = 2 families) was obtained in the first recruitment phase. The implication is that participants speaking Chinese only did not see or receive the opportunity to participate.

Second, the questionnaires were administrated in English; it is unknown whether participants' responses to GEQ in the Chinese version would differ from responses in the English version. Researchers suggest that completing the questionnaires in English may alter participants' ratings of cultural orientation and that language may affect cultural orientation (Tsai, et. al., 2000). For example, for Son J and Son K, their Chinese proficiency may influence their responses on answering

questionnaires in Chinese version. In order to eliminate the above possibilities, the understanding of how the language impacts participants' perceptions and reports about their cultural identities will be addressed in future study.

Third, there were only two families in the sample, and these two participant families shared a similar background. They are Christians and involved in Chinese church's activities. Christianity may affect their cultural orientations because they practice Western theories. Therefore, the future study will be suggested to recruit families with different religious backgrounds such as Buddhism, Taoism or traditional Chinese religion in order to increase the study's transferability (external validity) (Mertens, 2005).

The findings in this study, therefore, cannot be generalized to all Chinese-American Families. It is suggested that the study be replicated with a larger sample and should be conducted on various types of Chinese-American families in terms of place of birth, religion, socioeconomic status and immigrant age and year.

Finally, the participant family members in this study were the father and the son, without female members, in each family. Regarding the gender issue in acculturation process, the power structure in the family presently may shift from absolute patriarchy to a relatively more egalitarian relationship between husband and wife. Chen (2003) revealed that exposure to Western values of individual rights and

independence may lead a wife to become more confident and can thus enhance the acculturation process. Marín and Gamba (2003) reported that familialism has been suggested to be one of the most important cultural values among Asian Americans in the United States. From the above viewpoints, it is clear that if mothers could have been involved in the family discussion in this study, the interaction dynamic of whole family would be changed. Therefore, it is suggested that the future study should be a full family systems including female family members.

General Ethnicity Questionnaire

The unidimensional model (Phinney, 1990) assumes that one cultural orientation is contrarily related to the other. The bidimensional model (LaFrombise, et al., 1993; Phinney, 1990) assumes that cultural orientations are independent of each other. Instead of using a single acculturation instrument, either the bidimensional or the unidimensional model, the General Ethnicity Questionnaire (GEQ) created by Tsai, Ying and Lee (2000), was used in this study to examine how the meaning of being Chinese and being American varies among Chinese-Americans.

The findings from the GEQ in this present study showed that (a) the cultural orientation of being Chinese and American in each individual family member was different, and (b) the individual difference of being Chinese and being American was

based on the *specific cultural domains* of GEQ.

The differences between the fathers are as follows: Father J is from Hong Kong and Father K is from China; Father J was educated in Hong Kong and Father K was educated in Canada. The differences between the sons are as follow: Son J was born in Hong Kong and Son K in Canada which located in North American. Therefore, Son K might be influenced by Western culture as an American-born Chinese (ABC). These may cause the different perspectives of cultural orientation between Father J and Father K, as well as between Son J and Son K.

For those who immigrate to other countries during their young adult age being Chinese is a central part of their self concept, since their cultural identity has been formed. Thus, when Father J and Father K in this study first arrived in the United States, they would have considered themselves Chinese. This study testified to this concept when Father J and Father K strongly agreed that “Overall, I am Chinese” on the GEQC.

After spending more time in the United States, the meaning of being American and being Chinese may change for Father J and Father K. Since they have been exposed to American culture, they may have begun to internalize American culture. In addition, it is also possible that the relation between being American and being Chinese for immigrants is influenced by the age of migration more than by the length of the time spending in the United States. Father J immigrated at the age of 40,

yet Father K lived in Canada at his college age, and then moved to the United Stated at the age of 37. Accordingly, their GEQ reports showed that Father J had a neutral attitude toward being American, but Father K had a stronger identity as an American.

Tsai, Ying and Lee (2000) proved their hypotheses that being Chinese and being American would be uncorrelated for American-born Chinese, but negatively correlated for immigrant population. The population in their study was 253 Chinese-American college students (174 male, 179 female, mean age = 20.23). The young adults in the present study are also college students with ages of 20 and 18, respectively. But for Son J, an early immigrant, being Chinese and being American were uncorrelated; and for Son K, an American-born Chinese, being Chinese and being American were negatively correlated. These findings were different from Tsai's study.

Specific cultural domains. Mean scores on each of the subscales were calculated for each of the family. In this study, Son K's subscales of proficiency in the English language, affiliation with Americans, participation in American activities and preference for media in English were higher than Son J's. This result was exactly the same as the reports from Tsai's study (Tsai, et al., 2000). However, Son J and Son k reported that they preferred Chinese food more than American food, which was different from Tsai's study.

In the present study, these two families are living in the suburbs where environmental contact may differ from city in terms of the variety and opportunity of participating in either Chinese or American social activities. This would impact the results of Social Affiliation factors in *specific cultural domains*. To answer these questions such as “I prefer to live in a Chinese/Chinese American (or American) community,” “I go to a place where people are Chinese/Chinese Americans (or Americans),” would depend on whether their communities are more Chinese people or Americans. Similarly, to answer the questions from Exposure factors in Chinese cultural domains, such as “I was raised in a way that was Chinese,” “Now, I am exposed to Chinese culture,” “ I am familiar with Chinese cultural practices and customs,” and Media factors in American cultural domains such as “ How much do you view, read, or listen to English on TV (in film, or on the radio)?” would also rely on their living circumstances and local populations, such as in Chinatown or a Chinese dominant community in a suburban area.

For Family K, it must be pointed out that their Language and Social Affiliation answers on the GEQA were totally subjective. Interestingly, they had greater proficiency in English and participated more in American activities than in Chinese activities, whereas they were less socially affiliated with Americans.

Finally, future study should examine how cultural orientation affects the mental health and psychological functioning related to family members' relationship. For example, when family members are at different levels of acculturation, family conflicts are more likely to develop (Fang & Wark, 1998). The literature about the family conflict among immigrant families proposes that the intergenerational conflicts arise from a discrepancy in acculturation levels between parents and their children (Ying, et al., 2001). In this study, the GEQ detected acculturation difference between the Father and the Son, and also the NVFAS indicated the interaction patterns between them in these two families. Therefore, the findings of this holistic assessment could be used as guidance for therapists to apply in a clinical setting to deal with family's conflicts. It also could improve the mental health and psychological functioning among Chinese-Americans.

FACES IV

A total of two Chinese-American families completed the FACES IV questionnaire. This assessment provided information about how the family system functions. The six scales of FACES IV provide a more complete picture of balanced and unbalanced scales as perceived by each family member.

Healthy families in the Circumflex Model have balanced levels of cohesion and flexibility. Families on the *Balanced Cohesion* dimension allow their members to practice both independence from and connection to their families. Therefore, the dynamics of cohesion are often complicated in a family. For this instance, a family might have an enmeshed mother-adolescent coalition with a disengaged father. A family with problems in considering the *Balance Flexibility* dimension often has difficulty to balance stability and change. In such a situation, the relationships in the family are either too rigid or too chaotic. In this study, it is suggested that Family J may need to learn how to use more democratic decision-making skills and effective communication skills to improve the flexibility in that family system.

When one member's needs or preferences change, the system must somehow respond to that change (Olson & Gorall, 2003). For Family J, the expectations of the family system would be changed when Son J reached adolescence and wanted more freedom, independence and power. If Family J did not change their expectations according to the Son J's needs, the family would be unbalanced. In this case, a result related to the above hypothesis in this study showed that Son J reported his family as a rigid family, yet his father thought his family as a flexible family. For Son J, extreme rigidity in family rules may be acceptable because of following the disciplines of hierarchy and filial piety in Chinese cultural norms. On the other hand,

he may feel not enough freedom in his family.

Olson and Gorall (2003) stated that in terms of cohesion and flexibility, changing family systems are very difficult and complex unless family members improve their communication skills. A study by Marett, Sprenkle and Lewis in 1992, (as cited in Kouneski, 2000) also stated that low cohesion and poor parent-adolescent communication predicted severe family problems. For Family K, increasing the balance level and balancing the communication concept between Father K and Son K would essential to the health of their family system.

The hypotheses of FACES IV stated that "balanced family systems will have significant better family communication than unbalanced family system," "Families high in family communication will have significant greater family satisfaction than those low in communication" (Olson & Barns, 2006, p. 2). Those statements support Son K's situation in his family: he reported the lowest level of *Family Communication* and *Satisfaction* scores. Nevertheless, Father K viewed his family with very satisfaction, but with the moderate level of balance and communication, which was slightly incongruent with Olson's reports. Moreover, in Olson's previous study (1989), family satisfaction seemed to follow the shallow U curve across the family life cycle; interestingly, adolescent reports of family satisfaction were very similar to their parents in their studies (as cited in Olson & Barns, 2006). Their results showed the

difference from this present study: the great gap of the Family Satisfaction score in Family K. Since this is a pilot study using the GEQ and FACES IV in family systems, there is no published literature to support or refute conjecture or inference regarding how the acculturation gap influences family satisfaction in Chinese-American families.

More than 50 studies have adopted the FACES in examining the effects of cohesion and flexibility on child and adolescent development. The significant findings in those studies showed that family flexibility is a vital factor when families, especially those with adolescent children, need to change the structures. From the viewpoint of family cohesion and satisfaction, the student researcher infers that Son K might want to have emotional support and connection from his family members along with more flexibility in his family system.

A similar study (Henry, Sager, and Plunkett, 1990) also found that adolescents' expressions of empathic concern for others were significantly related to the perception of family closeness, and that family flexibility and communication are also significant for adolescent adjustment (as cited in Kouneski, 2000). According to the studies above, for both Family J and Family K, to develop family cohesion and flexibility along with quality communication is vital for the adolescent children's development and for the family closeness.

If there is too much cohesion among family members, there is not enough independence, thus, the family system is defined as an unhealthily enmeshed family. In the Western culture, a high level of enmeshment implies that there is too much attachment in families. In Asian cultural contexts, however, extremely close relationships are considered positive because strong support systems are so valuable for Chinese people. For example, for first generation immigrants, having an enmeshed family is not a risk factor; rather, it serves as a protective function. In such circumstances, family members' behaviors may be appropriate and healthy. The Chinese-American family displays a strong sense of group interdependence in a collectivistic orientation and should not be interpreted as an Enmeshed family (Fang & Wark, 1998).

A Caucasian with the Western values may define a Chinese family as an *Enmeshed* family. However, this family may function normally within the Chinese society. Thus, unbalanced family systems in some minority ethnic groups should not necessarily be defined as dysfunctional, especially if the family in question lives in a different cultural environment (Olson & Gorall, 2003). As the Chinese-American families in this study, a family member's self identification as Chinese or American would be a large impact on the family's functioning. Father J presented a negative correction of being Chinese and being American, his self identification therefore may

influence on his family system.

In summary, enmeshment, over-protectiveness, rigidity and lack of conflict resolution are the four interactive characteristics observed in Chinese families (King & Bond, 1985). Unfortunately, even the newest norms of FACES in the Circumflex Model studies of different ethnic and cultural groups do not take these differences into account. The student researcher in the present study suggests that extreme functioning with higher levels of rigid and enmeshed scores, as defined by the Circumflex Model, may be normal in Chinese cultural contexts.

The cross-cultural applicability is the conceptual challenge for FACES in the Circumflex Model. The literature reports that FACES is used across the world and among various ethnic and cultural groups in the United States. However, it is uncertain whether its theoretical framework can be universally applied. Western societies promote individualism and independence, but Asian societies encourage collectivism and interdependence. The participants in the present study are Chinese-American families with various value systems, which made it hard to examine their family functioning by using Western value systems. Because the Circumflex Model emphasizes autonomy and freedom over conformity and compliance, and the latter two are especially vital to the Chinese value system.

NVFAS

The NVFAS, using videotape of a dyad or larger family unit interacting in either a seated discussion or in a dance/movement therapy context, integrates kinestic factors and qualitative movement dynamics to assess the interaction behaviors among family members (Dulicai, 1977, 1995). In this study, the NVFAS was one measurement of observational data defining and cataloging a series of interactive behaviors including blocking, molding, partial body action, separating behaviors, shared focus and personal predominant movement parameters (Dulicai, 1977, 1995).

However, the tapes for this study showed only dyads in seated positions, so certain NVFAS parameters would be unlikely to appear at all. Regarding the limitation of describing the dyadic interactive dynamic, the KMP and the other interaction assessment were employed in this study. Moreover, the Tension Flow Rhythms and Tension Flow Attributes in the KMP, as described in *Chapter II, literature review,* revealed the movement quality of either indulging or fighting for each family member. Especially, the assessment in the form of triangulation combining of the KMP and the other interaction assessment may increase the credibility of qualitative observational data, and may decrease the cultural bias assessed from the raters and the student researcher. Since family members presented different acculturation levels in the family discussion sessions, the student researcher

employed three different observational measurements to describe the unique dialogue in each Chinese-American family.

The data drawn from the KMP and the other interaction assessment were made by the student researcher who had less observational training. Future studies should increase the number of raters for assessing data from these two assessments. In addition, observational data might be assessed with a convincing viewpoint due to a Chinese student researcher who knew more about the Chinese families through verbal contact; conversely, a Chinese student researcher's impression might impact the data analysis and decrease its credibility.

Father K presented more hand gestures than Son K, Son K responded Father K's gestures in the way of shifting his position. Their interactions showed a number of reciprocal and shared behaviors. However, the results of the FACES IV exhibited the mismatch in their different perspectives of the family types, *Midrange* versus *Rigidly Cohesive*; there was also a great gap in their *Family Communication* scores. Comparing these two results, it was clear that there was a discrepancy between the FACES IV data and the observational data exhibited in Family K. For future study, the Mother K and the other son in the family should be invited to participate in the study in order to describe the whole picture of the nonverbal interaction behaviors among Family K members.

Dance/movement therapy for Chinese Americans

Regarding cultural somatization symptoms and help-seeking behaviors as described in *Chapter II: literature review* , DMT a healing form with body of knowledge and indulging in diverse cultural backgrounds (Pallaro, 1997) may be considered as an alternative treatment for Chinese people.

The context of medical dance/movement therapy is specifically related to complementary and alternative medicine and mind/body medicine. The foundational concepts of medical dance/movement therapy include: (a) T*he biopsychosocial,* (b) *System theory,* (c) *Interdisciplinarity*, (d) *The mind/body integration*, (e) *Quality of life*, (f) *Disease/Illness*, (g) *Curing/healing* (Goodill, 2005). Therefore, it would be appropriate and effective to provide medical DMT to Chinese Americans who have somatization symptoms and psychological problems that may relate to their acculturative stresses.

It is suggested that dance movement therapy start with the medical approach to deal with patients' somatic complaints, instead of psychological symptoms or even mental illness. This approach could be carefully adapted to the conception of Chinese healing process, as mentioned earlier in *Chapter II: literature review,* to deal with "emotional diseases' among Chinese American and their families, for example, starting with the Taoism's principle of the balance of *Yin* and *Yang*.

Therefore, the medical dance/movement therapist who is proficient in nonverbal behaviors with cultural awareness and medical knowledge may enable to help an individual to integrate one's body, mind and emotions and even to employ psychotherapeutic interventions among Chinese America families.

CHAPTER VI: SUMMARY AND CONCLUSIONS

The aim of this case study is to explore the relationship between acculturation, intergenerational dynamics and the nonverbal interaction patterns between parents and their young adult children in Chinese-American families. The specific research objective was to form a holistic description of these two family participants through an integration of the data from the GEQC and GEQA and FACES IV assessments, which is related to how family members crystallize their acculturation and family functioning into their nonverbal communication pattern revealed on NVFAS data.

In both Family J and Family K, the findings from integrating GEQC and GEQA, FACES IV, and NVFAS data illustrate the acculturation gap between the fathers and the sons reported on the GEQC and GEQA questionnaires, and influenced their receptions of family type measured on FACES IV. For Family K, the acculturation gap also significantly affected their perceptions of *Family Satisfaction* and *Family Communication* as shown on FACES IV profile, as well as on their different movement dynamics as assessed by NVFAS. Similarly, for Family J, the acculturation gap significantly affected the scores of *Unbalanced Rigidity* as shown on FACES IV profile, as well as on their different movement dynamics as assessed by NVFAS.

Finally, the different movement patterns and qualities between the Fathers and the sons supported the results of GEQC and GEQA, and FACES IV to complete the holistic assessment for the Chinese immigrant family.

It is suggested that a holistic assessment to consist of cultural orientation, family functioning and nonverbal interaction patterns be explored in family therapy for multicultural populations, either in clinical settings or in the research area.

LIST OF REFERENCES

Abe-Kim, J., Takeuchi, D., & Hwang, W-C. (2002). Predictors of help seeking for emotional distress among Chinese-Americans: Family matters. *Journal of Consulting and Clinical Psychology,* 70 (5), 1186-1190.

ADTA (2008). *Homepage of the American Dance Therapy Association*. Retrieved on April 24, 2008, from http://www.adta.org.

Baptiste, D. A. (1990). The treatment of adolescents and their families in cultural transition: issues and recommendations. *Contemporary Family Therapy*, 2(1), 3-22.

Barckhausen, B. (1986). *A cross-cultural study of mother/child nonverbal interactions*. Unpublished master's thesis, Hahnemann University, Philadelphia.

Barnes, J. S., & Bennett, C. E. (2002). The Asian Population: 2000. *Census Bureau publication c2kbr01-16.* Issued February 2002.

Berry, J. W., Kim, U., Power, S., Young, M., & Bujaki, M. (1989). Acculturation attitudes in plural societies. *Apply Psychology,* 38, 185-206.

Berry, J. W., Poortinga, Y. H., Segall, M. H., & Dasen, P. R. (1992). Acculturation and culture contact. In J. W. Berry, Y. H. Poortinga, M. H. Segall, & P. R. Dasen (Eds.), *Cross-cultural physiology: Research and applications* (pp. 165-278). New York: Cambridge University press.

Berry, J. W. (2003). Conceptual approaches to acculturation. In K. M. Chun, P. B. Organista, & G. Marín (Eds.), *Acculturation [electronic resource]: Advances in theory, measurement, and applied research.* (pp. 17-37). Washington, D.C.: American Psychological Association.

Bernstein, P. L. (1981). *Theory and methods in dance movement therapy*. Dubuque, Iowa: Kendall/hunt publishing company.

Birdwhistell, R. (1970). *Kinesics and context*. Philadelphia: University of Pennsylvania press.

Boas, S. (2006). The body of culture: Trans-cultural competence in dance movement therapy. In H, Payne (Ed.), *Dance movement therapy: Theory, research and practice* (pp. 112-131). New York: Routledge publish.

Bond, M., H. (1993). Emotions and their expression in Chinese culture. *Journal of Nonverbal Behavior,* 17(4), 245-262.

Chang, M. (2006). How do dance/movement therapists bring awareness of race, ethnicity, and cultural diversity into their practice? In S. C. Koch & I. Bräuninger (Eds.), *Advance in dance/movement therapy: Theoretical perspectives and empirical findings* (pp. 192-205). Berlin: Logos Verlag publisher.

Chen, D. (1998). Family therapy for Chinese-Americans. In U. P. Gielen & A. L. Comunian (Eds.), *Family and family therapy in international perspective* (pp. 202-221). Trieste, Italy: Edizioni Lint Trieste.

Chun, K. M., & Akutsu, P. D. (2003). Acculturation among ethnic minority families. In K. M. Chun, P. B. Organista, & G. Marín (Eds.), *Acculturation [electronic resource]: Advances in theory, measurement, and applied research.* (pp. 95-119). Washington, D.C.: American Psychological Association.

Coseo, A. (1997). Developing cultural awareness for creative arts therapists. *The Arts in Psychotherapy,* 24 (2), 145-157.

Cornman, D. (1997). *Dance/movement therapy and autistic disorder-a case analysis of a father/son interaction.* Unpublished master's thesis, Hahnemann University, Philadelphia, Pennsylvania.

Combrinck-Graham, L. (1990). Developments in family systems theory and research. *Journal of the American Academy of Child and Adolescent Psychiatry,* 29(4), 501-512.

Crane, D. R., Ngai, S.W., Larson, J. H., & Hafen Jr., M. (2005). The influence of family functioning and parent-adolescent acculturation on North American Chinese adolescent outcomes. *Family Relations,* 54 (3), 400-410.

Deterson, D. S. (1991). *The kinesics of family systems: Distributional features of Nonverbal Interaction.* Doctoral dissertation, Minnesota school of professional psychology. Minneapolis, Minnesota.

Diamond, R. (1996). *A study comparing mother-child dance/movement therapy and individual dance/movement therapy in the treatment of children diagnosed with pervasive developmental disorders*. Unpublished master's thesis, Hahnemann University, Philadelphia, Pennsylvania.

Drumm, M., Carr, A., & Fitzgerald, M. (2000). The Beavers, McMaster and Circumplex clinical rating scales: A study of their sensitivity, specificity and discriminate validity. *Journal of Family Therapy*, 22 (2), 225-238.

Du, N. (2006). Asian American patients. In, R. F. Lim (Ed.), *Clinical manual of cultural psychiatry* (pp. 69-118). Washington, D.C.: American Psychiatric Publishing.

Dulicai, D. (1977). Nonverbal assessment of family systems: A preliminary study. *Arts Psychotherapy*, 4, 55-62.

Dulicai, D. (1995). *Movement indicators of attention and their role as identifiers of lead exposure*. Doctoral dissertation, The Graduate School of the Union Institute, Cincinnati, OH.

Fang, S-R. S., & Wark, L. (1998). Developing cross-cultural competence with traditional Chinese - Americans in family therapy: Background information and the initial therapeutic contact. *Contemporary Family Therapy*, 20(1), 59-77.

Feldman, S. S.**,** Mont-Reynaud, R., & Rosenthal, D. A. (1992). When East moves West: The acculturation of values of Chinese adolescents in the U.S. and Australia. *Journal of Research on Adolescence*, 2, 147-173.

Franklin, C., Streeter, C. L., & Springer, D. W. (2001). Validity of the FACES IV family assessment measure. *Research on Social Work Practice*, 11, 567.

Fu, M. (2002). *Acculturation, ethnic identity, and family conflict among first- and second-generation Chinese-Americans*. Dissertation Abstracts International: Section B: The Sciences and Engineering, 63 (2-B): 1024.

Furnham, A., & Li, Y. H. (1993). The psychological adjustment of the Chinese community in Britain: A study of two generations. *British Journal of Psychiatry*, 162, 109-113.

Goodill, S. W. (2005). *An introduction to medical dance/movement therapy: Health care in motion.* London and Philadelphia: Jessica Kingsley Publishers.

Harris, D.A. (2007) dance/movement therapy approaches to fostering resilience and recovery among African adolescent torture survivors. *Torture*, 17(2), 134-155.

Hastie, S. C. (2006). The Kestenberg Movement Profile. In S. L. Brooke (Ed.), *Creative arts Therapies manual* (pp. 121-132). Illinois: Charles C Thomas.

Heqin, Y. (2005). Confucian thought: implication for psychotherapy. In W.-S. Tseng, S. C. Chang, & M. Nishizono (Eds.), *Asian culture and psychotherapy* (pp. 129-141). Honolulu: University of Hawaii press.

Hopkins, K. D., Hopkins, B. R., & Glass, G. V. (1996). *Basic statistics for the behavioral sciences.* Boston: Allyn and Bacon.

Hong, G. K. (1989). Application of cultural and environmental issues in family therapy with immigrant Chinese Americans. *Journal of Strategic and Systemic Therapies*, 8, 14-21.

Hsiao, F. H., Klimidis, S., Minas, H., & Tan, E. S. (2006). Cultural attribution of mental health suffering in Chinese societies: The views of Chinese patients with mental illness and their caregivers. *Journal of Clinical Nursing*, 15, 998–1006.

Hsu, J. (1985). The Chinese Family: Relations, problems, and therapy. In W-S. Tseng, D. Y. H. Wu. (Eds), *Chinese culture and mental health* (pp. 95-112). London: Academic Press, INC.

Huang, D. D., & Charter, R. A. (1996). The origin and formation of Chinese Character: An Introduction to Confucianism and is influence on Chinese Behavior Patterns. *Cultural Diversity and Mental Health*, 2(1): 35-42.

Hwang, K.-K. (2001). The Deep Structure of Confucianism: A social psychological approach. *Asian Philosophy*, 11(3): 179-240.

Hwang, W.-C. (2006). Acculturative family distancing: theory, research, and clinical practice. *Psychotherapy: Theory, Research, Practice, Training*, 43, 397-409.

Kestenberg Amighi, J., Loman, S., Lewis, P., & Sossin, K. M. (1999). *The Meaning of Movement.* Netherland: Gordon and Breach.

King, A. Y. C., & Bond, M. H. (1985). The Confucian paradigm of man: A sociological view. In W.-S. Tseng, & D.Y. H. Wu (Eds), *Chinese culture and mental health* (pp. 29-46). Orlando, Academic Press.

Kleinman, A. (2001). Why psychiatry and cultural anthropology still need each other. *Psychiatry*, 64(1), 14-16.

Kleinman, A. (2004).Culture and depression. *New England Journal Medicine*, 351(10), 951-953.

Knapp, M. L., & Hall, J. A. (2002). The effects of gesture and posture on Human communication. In M. L. Knapp & J. A. Hall (Eds), *Nonverbal communication in human interaction* (pp. 253-296). South Melbourne, Australia: Wadsworth /Thomson Learning.

Koch, S. C. (2006).Theoretical perspectives in D/MT: Visions for the future. In S. L. Brooke (Ed.), *Creative arts Therapies manual* (pp. 109-120). Illinois: Charles C Thomas.

Kouneski, E. (2000). *Circumplex model and FACES: Review of literature.* Retrieved October 10, 2007, from http://www.facesiv.com.

LaFrombise, T., Coleman, H. L., & Gerton, J. (1993). Psychological impact of biculturalism: Evidence and theory. *Psychological Bulletin*, 114, 395-412.

Lee, B., K., & Chen, L. (2000). Cultural communication competence and psychological adjustment: A study of Chinese immigrant children's cross-cultural adaptation in Canada. *Communication Research*, 27, 764-792.

Lee, E. (1996). Asian American families: An overview. In M. McGoldrick, J. Giordano, & J. Pearce (Eds.), *Ethnicity and family therapy,* (pp. 249-267). New York: Guilford Press.

Lee, R. M., Choe, J., Kim, G., & Ngo, V. (2000). Construction of Asian American family conflict scale. *Journal of counseling psychology*, 47, 211-222.

Lee, R. M., & Liu, H-T. T. (2001). Coping with intergenerational family conflict: Comparison of Asian American, Hispanic, and European American college students. *Journal of Counseling Psychology,* 48, 410-419.

Lee, R. M., Su, J., & Yoshida, E. (2005). Coping with intergenerational family conflict among Asian American college students. *Journal of counseling psychology,* 52, 389-399.

Leong, F. T., & Lau A. S. (2001). Barriers to providing effective mental health services to Asian Americans. *Mental Health Research*, 3, 201-214.

Lewis-Fernandez, R., & Kleinman, A. (1995). Cultural psychiatry: Theoretical, clinical, and research issues. *Cultural Psychiatry*, 18(3), 433-448.

Lin, C. Y., & Fu, V. (1990). A comparison of child-rearing practices among Chinese, immigrant Chinese, and Caucasian-American parents. *Child Development,* 61, 429-433.

Lin, C., & Liu, W. Y. (1993) Intergenerational relationships among Chinese immigrant families from Taiwan. In H. P. McAdoo (Ed.), *Family ethnicity: Strength in diversity,* (pp. 271-286). Newbury Park, CA: Sage Publications.

Loman, S., & Foley, L. (1996). Models for understanding the nonverbal process in relationship. *The Art in Psychotherapy*, 23, 341-350.

Lutz, C. (1985). Depression and the translational emotional words. In A. Kleinman, & B. Good. (Eds), *Culture and depression: studies in the anthropology and cross-cultural psychiatry of affect and disorder* (pp 63-100). London: University of California press.

Ma, J. L. C. (2005). The diagnostic and therapeutic uses of family conflicts in a Chinese context: the case of anorexia nervosa. *Journal of Family Therapy*, 27, 24–42.

Mak, W. W. & Zane, N. W. (2004). The phenomena of somatization among community Chinese Americans. *Social Psychiatry & Psychiatric Epidemiology*, 39(12), 967-974.

Maletic, V. (1987). *Body – self – expression: the development of Rudolf Laban's movement and dance concepts.* Berlin: Mouton de Gruyter.

Marín, G., & Gamba, R. J. (2003). Acculturation and Changes in Cultural Values. In K. M. Chun, P. B. Organista, & G. Marín (Eds.), *Acculturation [electronic resource] : Advances in theory, measurement, and applied research.* (pp. 83-93). Washington, D.C.: American Psychological Association.

McGoldrick, A., Giordano, J, & Pearce, J. K. (2005). *Ethnicity and family therapy*. New York: Guilford press.

Mertens, D. M. (2005). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods.* London: Sage Publications.

Nemetz, L. D. (2006). Moving with meaning: The historical progression of dance/movement therapy. In S. L. Brooke (Ed.), *Creative arts Therapies manual* (pp. 95-108). Illinois: Charles C Thomas.

Nicholson, B. (1997). The influence of pre-emigration and post-emigration stressors on mental health: A study of Southeast Asian refugees. *Social Work Research*, 21(1), 19-31.

Olson, D. H., & Barns (2006).Family Communication. In *FACE IV package*. Minneapolis, MN: Life Innovations, Inc

Olson, D. H., & Gorall, D. M. (2003). Circumplex model of marital and family systems. In F. Walsh (Ed), *Normal family processes: Growing diversity and complexity* (pp. 514-548). New York: Guilford Press.

Olson, D. H., Gorall, D. M., & Tiesel, J. W. (2006). *FACE IV package*. Minneapolis, MN: Life Innovations, Inc.

Organista, P. B., Organista, K.C., & Kurasaki, K. (2003). The relationship between acculturation and ethnic minority mental health. In K. M. Chun, P. B. Organista, & G. Marín (Eds.), *Acculturation [electronic resource]: Advances in theory, measurement, and applied research.* (pp. 139-161). Washington, D.C.: American Psychological Association.

Pallaro, P. (1997). Culture, self and body-self: dance/movement therapy with Asian Americans. *The Arts in Psychotherapy*, 24, 227-241.

Phinney, J. S. (1990). Ethnic identify in adolescents and adults: Review of research. *Psychological Bulletin*, 108, 499-514.

Rhee, S., Chang, J., & Rhee, J. (2003). Acculturation communication patterns and self-esteem among Asian and Caucasian American adolescents. *Adolescence*, 38, 749-768.

Rosenthal, D. N., & Feldman, S. S. (1989). The acculturation of Chinese immigrants: Perceived effects on family functioning of length of residence in two cultural contexts. *The Journal of Genetic Psychology*, 151, 495-514.

Ryder, A. G., Alden, L. E., & Paulhus, D. L. (2000). Is acculturation unidimensional or bidimensional? A head-to-head comparison in the prediction of personality, self-construal, and adjustment. *Journal of Personality and Social Psychology*, 79, 49-65.

Santisteban, D.A., & Mitrani,V. B. (2003). The influence of acculturation processes on the family. In K. Chun, P. B. Organista, & G. Marín (Eds.), *Acculturation [electronic resource]: Advances in theory, measurement, and applied research* (pp. 121-135). Washington, D.C.: American Psychological Association.

Sbiglio, M. G. (1999). *A pilot comparative study of nonverbal interactions in Puerto Rican families with and without a history of family violence.* Unpublished master's thesis, Hahnemann University, Philadelphia, Pennsylvania.

Sbiglio, M. G. (2006). Dance/movement therapy and nonverbal assessment of family violence : A pilot comparative study. In S. C. Koch & I. Bräuninger (Eds.), *Advance in dance/movement therapy: Theoretical perspectives and empirical findings* (pp. 192-205). Berlin: Logos Verlag publisher.

Scheflen, A. (1972). *Body language and the social order.* Englewood Cliffs: Prentice Hall.

Segal, U. (1991). Cultural variables in Asian Indian families. *Families in Society,* 11, 233-241.

Shek, D. T. L. (1997).The relation of family functioning to adolescent psychological well-being, school adjustment, and problem behavior. *Journal of Genetic Psychology,*158, 467-480.

Shon, S. P., & Ja, D. Y. (1982). Asian families. In M. McGoldrick, J. K. Pearce, & J. Giordono (Eds.), *Ethnicity and family therapy* (pp. 208-228). New York: Guilford Press.

Sigelman, C. K., & Adams, R. M. (1990). Family interactions in public: Parents-child distance and touching. *Journal of Non-verbal Behaviors*, 14(2), 63-75.

Soo-Hoo, T. (2005). Working within the cultural context of Chinese American families. *Journal of Family Psychotherapy*, 16(4), 45-63.

Szapocanik, J, & Kurtines, W. M. (1993). Family psychology and cultural diversity: Opportunity for theory, research, and application. *American Psychologist*, 48, 400-407.

Tepayayone, W. (2004). *Culture, perception, and clinical assessment in dance/movement therapy: A phenomenological investigation*. Unpublished master's thesis, Drexel University, Philadelphia, Pennsylvania.

Terry, S-H. (2005). Working Within the Cultural Context of Chinese-American Families. *Journal of Family Psychotherapy*, 16 (4), 2005, 45-63.

Tsai, J. L., Chentsova-Dutton, Y., & Wong, Y. (2002). Why and how we should study ethnic identity, acculturation, and cultural orientation. In N. Hall, & C. Gordon (Eds); S. Okazaki (Ed). *Asian American psychology: The science of lives in context.* (pp. 41-65). Washington, DC, US: American Psychological Association.

Tsai, J. L., Mortensen, H., Wong, Y., & Hess, D., (2002). What does "being American" means? A comparison of Asian American and European American Young Adults. *Cultural Diversity and Ethnic Minority Psychology*, 8, (3), 257-273.

Tsai, J. L., Simeonova, D. I., & Watanabr, J. T. (2004). Somatic and social: Chinese Americans talk about emotion. *Personality and Social Psychology Bulletin*, 30(9), 1226-1238.

Tsai, J. L, Ying, Y., & Lee, P. A. (2000). The meaning of "being Chinese" and "being American": Variation among Chinese-American young adults. *Journal of Cross-Cultural Psychology*, 31 (3), 302-332.

Tseng, V., & Fuligni, A. J. (2000). Parent-Adolescent language use and relationships among immigrant families with East Asian, Filipino, and Latin American background. *Journal of Marriage and the Family*, 62, 465–476.

Tseng, W.-S. & Wu, D. Y. H. (1985). *Chinese culture and mental health*. Orlando: Academic Press.

Tseng, W.-S. (2001). Culture and psychotherapy: An overview. In *culture and psychotherapy: A guide to clinical practice*. W.-S. Tseng, & J. Streltzer (Eds.), (pp. 3-12). Washington, DC: American Psychiatric Press.

U.S. Census (2002). *State & County Quick Facts, 2000 Census for USA.* Retrieved Dec. 28th, 2007, from http://quickfacts.census.gov/qfd/states/00000.html.

U.S. Census (2005). *State & County Quick Facts, 2005 Census for USA.* Retrieved Dec. 28th, 2007, from http://quickfacts.census.gov/qfd/states/00000.html.

Yeung, A., Chang, D., Gresham, R. L., Nierenber, A.A., & Fava, M. (2004). Illness beliefs of depressed Chinese American patients in primary care. *Journal of Nervous & Mental Disease*, 192(4), 324-7.

Yeung, W. H., & Schwartz, M. A. (1986). Emotional disturbance in Chinese obstetrical patients: A pilot study. *General Hospital Psychiatry,* 8, 258-262.

Ying, Y.-W. (1995). Cultural orientation and psychological well-being in Chinese - Americans. *American Journal of Community Psychology*, 23,893-911.

Ying, Y.-W. (1999). An educational program for families on intergenerational conflict. In E. Kramer, S. Ivey, & Y. Ying (Eds). *Immigrant women's health: Problems and solutions* (pp. 282-294). San Francisco: Jossey-Bass.

Ying, Y.-W. (1999a). Strengthening intergenerational/intercultural ties in migrant families: A new intervention for parents. *Journal of Community Psychology,* 27, 89-96.

Ying, Y., Lee, P. A., Tsai, J. L., Lee, Y. J., & Tsang, M. (2001). Relationship of young Chinese-American adults with their parents: Variation by migratory status and cultural orientation. *American Journal of Orthopsychiatry, 71,* 342–349.

Ying, Y.-W., & Han, M. (2007). The longitudinal effect of intergenerational gap in acculturation on conflict and mental health in South Asian American adolescents. *American Journal of Orthopsychiatry*, 77 (1), 61-66.

Ying, Y.-W., Lee, P. A., & Tsai, J. L. (2004). Psychometric properties of the intergenerational congruence in immigrant families: Child Scale in Chinese Americans. *Journal of Comparative Family Studies,* 35(1), 91-103.

Ying, Y, & Tracy, L. C. (2004). Psychometric properties of the intergenerational congruence in immigrant families: Parent Scale in Chinese Americans. *Social Work Research,* 28(1), 56-62.

Wen, J. K. (1998). Folk belief, illness behavior and mental health in Taiwan. *Changgeng Yi Xue Za Zhi,* 21(1), 1-12.

Westermeyer, J., & Her, C. (1996). English fluency and social adjustment among Hmong refugees in Minnesota. *Journal of Nervous and Mental Disease,* 184, 130-132.

APPENDIX A: DEMOGRAPHIC QUESTIONNAIRE

Subject ID (4 digit) _____ Age: ____ **Sex:** M: __ F: __ **Date:** _____

1. Education:

(a)___ Some High School (b) ___ Completed High School

(c) ___ Some college (d)___ Completed College (e)___ Advanced Degree

(f) Years of education in United Status:_____ years

2. Your income: $ (If relevant)

(a) ___ Less than $10,000 (b)__ $10-14,499 (c) ___ $15,000-2,4999

(d)___ $25,000-34,999 (e)___ $35,000-50,000 (f) ___ more than $50,000

3. Your migration status:

(a) Place of birth: ___China, ___ Hong Kong, ____Macao, ____Taiwan,
___ United States, ____ others_____(country)

(b) Years of resident in the United States:_____ years

4. Your Current marital status:

(a)___ Single, never married (e) ___ Married, not first marriage

(b)___ Single, divorced (f) ___ Life-partnership

(c)___ Single, widowed (g) ___ Living together

(d)___ Married, first marriage (h) ___ Separated

5. Your current living arrangement:

(a)___ Alone (d)___ With Others

(b)___ With Parents (e)___ With Children

(c)___ With Partner (f)___ With Parents and Children

Family information:

6. In this family, you are

(a)___ father (c)____ grandfather (e) ___ child (g) other members_____

(b)___ mother (d)____ grandmother (f) relative:_____

7. The family structure is

(a) ____ Two parents (biological) (d) ___ Two Parent (same sex)

(b) ____ Two parents (step family) (e) ___ Single Parent

(c) ____ Two parents (adoptive)

8. Number of Children in this Family:

(a) ____ None (b) ____ One (c) ___ Two (d) ____ Three

(e) ____ Four (f) ____ Five (g) Six or more

APPENDIX B: GEQC

No._____

Please use the following scale to indicate how much you agree with the following statements. Circle your response.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1.	I was raised in way that was Chinese.	1 2 3 4 5
2.	When I was growing up, I was exposed to Chinese culture.	1 2 3 4 5
3.	Now, I am exposed to Chinese culture.	1 2 3 4 5
4.	Compared to how much I negatively criticize other cultures, I criticize Chinese culture less.	1 2 3 4 5
5.	I am embarrassed/ashamed of Chinese culture.	1 2 3 4 5
6.	I am proud of Chinese culture.	1 2 3 4 5
7.	Chinese culture has had a positive impact on my life.	1 2 3 4 5
8.	I believe that my children should read, write, and speak Chinese.	1 2 3 4 5
9.	I have a strong belief that my children should have Chinese names only.	1 2 3 4 5
10.	I go to places where people are Chinese.	1 2 3 4 5
11.	I am familiar with Chinese cultural practices and customs.	1 2 3 4 5
12.	I relate to my partner or spouse in a way that is Chinese.	1 2 3 4 5
13.	I admire people who are Chinese.	1 2 3 4 5
14.	I would prefer to live in an Chinese community.	1 2 3 4 5
15.	I listen to Chinese music.	1 2 3 4 5
16.	I perform Chinese dance.	1 2 3 4 5
17.	I engage in Chinese forms of recreation.	1 2 3 4 5
18.	I celebrate Chinese holidays.	1 2 3 4 5
19.	At home, I eat Chinese food.	1 2 3 4 5
20.	At restaurants, I eat Chinese food.	1 2 3 4 5
21.	When I was a child, my friends were Chinese.	1 2 3 4 5
22.	Now, my friends are Chinese.	1 2 3 4 5

No._____

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

23. I wish to be accepted by Chinese. 1 2 3 4 5
24. The people I date are Chinese. 1 2 3 4 5
25. Overall, I am Chinese. 1 2 3 4 5

Please use the following scale to answer the following questions. Circle your response.

1	2	3	4	5
Very much	Much	Somewhat	A little	Not at all

26. How much do you speak Chinese *at home*? 1 2 3 4 5
27. How much do you speak Chinese *at school*? 1 2 3 4 5
28. How much do you speak Chinese *at work*? 1 2 3 4 5
29. How much do you speak Chinese *at prayer*? 1 2 3 4 5
30. How much do you speak Chinese *with friends*? 1 2 3 4 5
31. How much do you view, read, or listen to Chinese *on TV*? 1 2 3 4 5
32. How much do you view, read, or listen to Chinese *in film*? 1 2 3 4 5
33. How much do you view, read, or listen to Chinese *on the radio*? 1 2 3 4 5
34. How much do you view, read, or listen to Chinese *in literature*? 1 2 3 4 5
35. How fluently do you *speak* Chinese? 1 2 3 4 5
36. How fluently do you *read* Chinese? 1 2 3 4 5
37. How fluently do you *write* Chinese? 1 2 3 4 5
38. How fluently do you *understand* Chinese? 1 2 3 4 5

APPENDIX C: GEQA

No._____

Please use the following scale to indicate how much you agree with the following statements. Circle your response.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. I was raised in way that was American. 1 2 3 4 5
2. When I was growing up, I was exposed to American culture. 1 2 3 4 5
3. Now, I am exposed to American culture. 1 2 3 4 5
4. Compared to how much I negatively criticize other cultures, I criticize American culture less. 1 2 3 4 5
5. I am embarrassed/ashamed of American culture. 1 2 3 4 5
6. I am proud of American culture. 1 2 3 4 5
7. American culture has had a positive impact on my life. 1 2 3 4 5
8. I believe that my children should read, write, and speak English. 1 2 3 4 5
9. I have a strong belief that my children should have American names only. 1 2 3 4 5
10. I go to places where people are American. 1 2 3 4 5
11. I am familiar with American cultural practices and customs. 1 2 3 4 5
12. I relate to my partner or spouse in a way that is American. 1 2 3 4 5
13. I admire people who are American. 1 2 3 4 5
14. I would prefer to live in an American community. 1 2 3 4 5
15. I listen to American music. 1 2 3 4 5
16. I perform American dance. 1 2 3 4 5
17. I engage in American forms of recreation. 1 2 3 4 5
18. I celebrate American holidays. 1 2 3 4 5
19. At home, I eat American food. 1 2 3 4 5
20. At restaurants, I eat American food. 1 2 3 4 5
21. When I was a child, my friends were American. 1 2 3 4 5
22. Now, my friends are American. 1 2 3 4 5

No._____

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

23. I wish to be accepted by Americans. 1 2 3 4 5
24. The people I date are American. 1 2 3 4 5
25. Overall, I am American. 1 2 3 4 5

Please use the following scale to answer the following questions. Circle your response.

1	2	3	4	5
Very much	Much	Somewhat	A little	Not at all

26. How much do you speak English *at home*? 1 2 3 4 5
27. How much do you speak English *at school*? 1 2 3 4 5
28. How much do you speak English *at work*? 1 2 3 4 5
29. How much do you speak English *at prayer*? 1 2 3 4 5
30. How much do you speak English *with friends*? 1 2 3 4 5
31. How much do you view, read, or listen to English *on TV*? 1 2 3 4 5
32. How much do you view, read, or listen to English *in film*? 1 2 3 4 5
33. How much do you view, read, or listen to English *on the radio*? 1 2 3 4 5
34. How much do you view, read, or listen to English *in literature*? 1 2 3 4 5
35. How fluently do you *speak* English? 1 2 3 4 5
36. How fluently do you *read* English? 1 2 3 4 5
37. How fluently do you *write* English? 1 2 3 4 5
38. How fluently do you *understand* English? 1 2 3 4 5

APPENDIX D: GEQ PERMISSION FORM

STANFORD UNIVERSITY

DEPARTMENT OF PSYCHOLOGY

Jordan Hall, Bldg. 420

Stanford, California 94305-2130

Date: 10/2/07

Dear Sheau-Ling Duh,

Thank you for your interest in using the General Ethnicity Questionnaire (GEQ) in your research.

Given that you follow the terms and conditions provided on our website, you have permission to use the GEQ Chinese and the GEQ American for your thesis research.

Best,

Tsai Lab
Stanford University
Department of Psychology
Jordan Hall, Building 420
Stanford, CA 94305
(650) 724-0534
tsailab@psych.stanford.edu

APPENDIX E: FACES IV

Directions to Family Members:

1. All family members over the age 12 can complete FACES IV.

2. Family members should complete the instrument independently, not consulting or discussing their responses until they have been completed.

*3. Fill in the corresponding **number** in the space on the provided answer sheet.*

1	2	3	4	5
Strongly Disagree	**Generally Disagree**	**Undecided**	**Generally Agree**	**Strongly Agree**

1. Family members are involved in each others lives.
2. Our family tries new ways of dealing with problems.
3. We get along better with people outside our family than inside.
4. We spend too much time together.
5. There are strict consequences for breaking the rules in our family.
6. We never seem to get organized in our family.
7. Family members feel very close to each other.
8. Parents equally share leadership in our family.
9. Family members seem to avoid contact with each other when at home.
10. Family members feel pressured to spend most free time together.
11. There are clear consequences when a family member does something wrong.
12. It is hard to know who the leader is in our family.
13. Family members are supportive of each other during difficult times.
14. Discipline is fair in our family.
15. Family members know very little about the friends of other family members.
16. Family members are too dependent on each other.
17. Our family has a rule for almost every possible situation.
18. Things do not get done in our family.
19. Family members consult other family members on important decisions.
20. My family is able to adjust to change when necessary.
21. Family members are on their own when there is a problem to be solved.
22. Family members have little need for friends outside the family.

1	2	3	4	5
Strongly Disagree	**Generally Disagree**	**Undecided**	**Generally Agree**	**Strongly Agree**

23. Our family is highly organized.
24. It is unclear who is responsible for things (chores, activities) in our family.
25. Family members like to spend some of their free time with each other.
26. We shift household responsibilities from person to person.
27. Our family seldom does things together.
28. We feel too connected to each other.
29. Our family becomes frustrated when there is a change in our plans or routines.
30. There is no leadership in our family.
31. Although family members have individual interests, they still participant in family activities.
32. We have clear rules and roles in our family.
33. Family members seldom depend on each other.
34. We resent family members doing things outside the family.
35. It is important to follow the rules in our family.
36. Our family has a hard time keeping track of who does various household tasks.
37. Our family has a good balance of separateness and closeness.
38. When problems arise, we compromise.
39. Family members mainly operate independently.
40. Family members feel guilty if they want to spend time away from the family.
41. Once a decision is made, it is very difficult to modify that decision.
42. Our family feels hectic and disorganized.

---

43. Family members are satisfied with how they communicate with each other.
44. Family members are very good listeners.
45. Family members express affection to each other.
46. Family members are able to ask each other for what they want.
47. Family members can calmly discuss problems with each other.
48. Family members discuss their ideas and beliefs with each other.
49. When family members ask questions of each other, they get honest answers.
50. Family members try to understand each other’s feelings
51. When angry, family members seldom say negative things about each other.
52. Family members express their true feelings to each other

1	2	3	4	5
Very Dissatisfied	**Generally Satisfied**	**Somewhat Dissatisfied**	**Very Satisfied**	**Extremely Satisfied**

How satisfied are you with:

53. The degree of closeness between family members.
54. Your family's ability to cope with stress.
55. Your family's ability to be flexible.
56. Your family's ability to share positive experiences.
57. The quality of communication between family members.
58. Your family's ability to resolve conflicts.
59. The amount of time you spend together as a family.
60. The way problems are discussed.
61. The fairness of criticism in your family.
62. Family members concern for each other.

Thank you for Your Cooperation

FACES IV: Answer Sheet

Digital ID: _____

1	2	3	4	5
Strongly Disagree	**Generally Disagree**	**Undecided**	**Generally Agree**	**Strongly Agree**

1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____
7. ____ 8. ____ 9. ____ 10. ____ 11. ____ 12. ____
13. ____ 14. ____ 15. ____ 16. ____ 17. ____ 18. ____
19. ____ 20. ____ 21. ____ 22. ____ 23. ____ 24. ____
25. ____ 26. ____ 27. ____ 28. ____ 29. ____ 30. ____
31. ____ 32. ____ 33. ____ 34. ____ 35. ____ 36. ____
37. ____ 38. ____ 39. ____ 40. ____ 41. ____ 42. ____

1	2	3	4	5
Strongly Disagree	**Generally Disagree**	**Undecided**	**Generally Agree**	**Strongly Agree**

43. ____ 44. ____ 45. ____ 46. ____ 47. ____ 48. ____
49. ____ 50. ____ 51. ____ 52. ____

1	2	3	4	5
Very Dissatisfied	**Generally Satisfied**	**Somewhat Dissatisfied**	**Very Satisfied**	**Extremely Satisfied**

53. ____ 54. ____ 55. ____ 56. ____ 57. ____ 58. ____
59. ____ 60. ____ 61. ____ 62. ____

APPENDIX F: FACES IV PERMISSION

LIFE INNOVATIONS, Inc.®
P.O. Box 190 ● Minneapolis, MN ● 55440-0190
800-331-1661 ● 651-635-0511 ● FAX: 651-636-1668
www.facesiv.com

Permission to Use FACES IV Package

Website: www.facesiv.com
Customer Service: cs@facesiv.com
Storing & Scoring Data: data@facesiv.com

I am pleased to give you permission to use the **FACES IV Package** in your research project, teaching or clinical work with couples or families. In order to use FACES IV, you must use the entire FACES IV Package which contains 62 items.

You may either duplicate the materials directly or have them retyped for use in a new format. If they are retyped, acknowledgement should be given regarding the name of the instrument, the developers' names, and Life Innovations.

In exchange for providing this permission, we would appreciate a copy of any papers, theses or reports that you complete using the **FACES IV Package.** This will help us to stay abreast of the most recent developments and research regarding this scale. We thank you for your cooperation in this effort.

Also, we are requesting that you provide us with a *set of your data* so that we can build a large and diverse norm base. We will acknowledge your contribution to the master data base. We will not use your data for individual studies on your topic or any topic. We would appreciate it if you used the format we have provided in an Excel spreadsheet (Microsoft).

In closing, I hope you find the **FACES IV Package** of value in your work with families. I would appreciate hearing from you as you make use of this package.

Sincerely,

David H. Olson

David H. Olson, Ph.D.

APPENDIX G: CCC& C PERMISSION

CHINESE CHRISTIAN CHURCH AND CENTER
225 North Tenth Street • Philadelphia • Pennsylvania • 19107-1820
Church: 215-627-2360 • Fax: 215-627-1325 • Center: 215-925-0388 • www.cccnc.org • info@cccnc.org

Oct 30th, 2007

To Whom It May Concern:

We have received and reviewed the proposal for Ms. Sheau-Ling Duh's thesis research project, Titled "Acculturation and nonverbal behavior interactions in the relationship between parents and their adult children in Chinese American immigrant families: An observational study." It meets our approval and we give permission for Mr. Duh to recruit research participants from our Chinese Christian Church and Center.

Sincerely

Laurence Tom
Pastor
Tel: 215-922-0763, Ext. 12

APPENDIX H: RECRUITMENT FLYER

Volunteers

Needed to participate in a research study

Research Study Title: Acculturation and nonverbal behavior interactions in the relationship between parents and their adult children in Chinese Americans immigrant families: An observational study.

What does "being American" mean in

Chinese American immigrant families?

Your family is eligible to participate in this study:
** If you are a Chinese American immigrant family, and*
** at least one child is 18 years of age or older in your family.*

Please note that your participation will not be possible:
** If you are diagnosed with mental health illness, or*
** If you have a history of domestic violence, child/sexual abuse, or substance abuse.*

1. This study will take 45-60 minutes with each family.

2. You will be asked to complete three self-report questionnaires, and then the family will be videotaped for 15-30 minutes while having a discussion.

3. You and your family members' identities will keep confidential. The videotape will be kept in the locked room of the University office and will be destroyed after three years.

4. Your family will receive a value $30 gift card to Dunkin' Donuts as thankfulness.

For additional information, or if you want to volunteer for this study, please contact: ***Sheau-Ling Duh at : 215-275-7058***

This study is being conducted by dance/movement graduate student Sheau-Ling Duh as partial fulfillment of a master's degree at Drexel University, College of Nursing and Health Professions, Hahnemann Creative Arts in Therapy Program Center City Hahnemann Campus, Philadelphia

APPENDIX I: FLYER FORM

Instruction:

1. Please read carefully the attached flyer context
2. Please print your name on the blank
3. Please check the appropriate choice
4. Please give this Flyer Form back to Ms. Duh

I _____ have read the attached flyer and based on the list of criteria on the flyer I believe that I

☐ **Qualify**

☐ **Do Not Qualify**

Name (Print) _____ Date: _____

APPENDIX J: INVITATION LETTER

Recruitment letter for members of the Chinese Christian Church and Center

Dear Chinese-American Immigrant family members:

I am a Chinese graduate student in the Hahnemann Creative Arts in Therapy Program of the College of Nursing and Health Professions at Drexel University, and I am looking for volunteers to participate in my master's thesis research study. I invite you to participate as a volunteer family in this research study.

Do you want to know more about how Eastern and Western cultural differences influence in your family life? And what does "being American" and "being Chinese" mean to the parents and the children in your family? Have any cultural differences influenced family members' relationship and/or interaction?

If you are a Chinese - American immigrant family that has at least one child 18 years of age or older, you are invited to contact me. The title of this study is: "Acculturation and nonverbal behavior interactions in the relationship between parents and their adult children in Chinese - Americans immigrant families: An observational study."

If you are a Chinese - American immigrant family, you may qualify for participation in this study. ***The specific qualifications to participate are:***

Criteria for Parents: Participant parents must be immigrants. a.) They have at least one child who is 18 years old or older. b) They were born and raised outside the United States, primarily in Mainland China, Taiwan, Hong Kong or Macau; their primary language will be Mandarin or English. c) They are 89 years of age or younger.

Criteria for Young Adult participants: a) They must be American-born Chinese (ABC), or b) early-immigrant Chinese (EIC) who entered the United States before or at the age of 12, or c) late-immigrant Chinese (LIC) who entered the United States after the age of 12. d) They are 18 years of age or older.

You will not qualify to participate if:

1) You are diagnosed with mental health illness, or

2) You have a history of domestic violence, child/sexual abuse, or substance abuse.

This study will take about 45-60 minutes of your time in church's private room for completing three self-report questionnaires, and then your family will be videotaped 15-30 minutes while having a discussion. You and your family members' identities will keep confidential. After the study is finished, the videotape will be kept in the locked room of the University office and will be destroyed after three years.

There may be no direct benefits from participating in this study; however, you may experience the following: an opportunity for a family gathering. You and your family members will be offered a $30 gift card to Dunkin' Donuts after this study as a "thank-you gift" for your participation.

For more information, or to volunteer for this study, you may contact me, the student researcher, Ms. Duh, by cell phone: 215-275-7058.

Sincerely,

Student researcher Sheau-Ling Duh

Principle Investigator Dr. Goodill

APPENDIX K: NVFAS DATA SHEET: INTERACTION

Rating Key:

A: accommodating; AP: approach; B: blocking; BO: bonding; E--: eye contact with
EX: Exploratory Behavior; FB: full body action; G <: gesture away;
G >: gesture toward; M: molding; PB: partial body action; P<: posture away
P >: posture toward; SEP: separating Behavior; SF: shared focus

Family member	Action toward	Family member

Family members: F: father; M: mother; S: son; D: daughter; GF: grandfather;
GM: grandmother; O: others

APPENDIX L: NVFAS DATA SHEET: PROFILE

Family members: F: father; M: mother; S: son; D: daughter; GF: grandfather; GM: grandmother; O: others

Family member	Movement quality	Predominant movement	parameters available

APPENDIX M: INFORMED CONSENT FORM

Subject's initials_____

Drexel University
Consent to Take Part
In a Research Study

1. Subject's name:_____

2. Title of Research: Acculturation and nonverbal behavior interactions in the relationship between parents and their adult children in Chinese Americans immigrant families: An observational study.

3. Investigator's Name: Sharon W. Goodill, Ph.D., ADTR, LPC, Primary Investigator
   Sheau-Ling Duh, MS, RN, Student Researcher and Co-Investigator.

4. Research entity: Drexel University

5. Consenting for the Research Study: This is a long and an important document. If you sign it, you will be authorizing Drexel University and its researchers to perform research studies on you. You should take your time and carefully read it. You can also take a copy of this consent form to discuss it with your family member, attorney or any one else you would like before you sign it. Do not sign it unless you are comfortable in participating in this study.

6. Purpose of research: You are being asked to participate in a research study. The purpose of this study is to describe cultural adjustment and family interaction between parents and their adult children in Chinese American families. Up to three families and up to 21 people will be participating in this study.

   If you are a Chinese American immigrant family, please review the criteria below to determine if you are qualified for participation in this study.

The specific qualifications to participate are:

Criteria for Parents: Participant parents must be immigrants. a.) You must

have at least one child who is 18 years old or older. b) You must have been born and raised outside the United States, primarily in Mainland China, Taiwan, Hong Kong or Macau, c) Your primary language is Mandarin or English. d) You are 89 years of age or younger.

Criteria for Young Adult participants: You must be a) American-born Chinese (ABC), or b) early-immigrant Chinese (EIC) who entered the United States before or at the age of 12, or c) late-immigrant Chinese (LIC) who entered the United States after the age of 12. d) You are 18 years of age or older.

You do not qualify to participate if:

1) You are diagnosed with mental health illness, or
2) You have a history of domestic violence, child/sexual abuse, or substance abuse.

If you are qualified for this study, you will be asked to fill out three questionnaires, and participate in a videotaped family discussion for 15-30 minutes. This study is being conducted by a dance/movement therapy graduate student, Sheau-Ling Duh, as partial fulfillment of a master's degree at Drexel University, College of Nursing and Health Professions.

7. Procedures and duration: You understand that the following things will be done to you.
You will be asked to complete three questionnaires.
1) The Demographic Questionnaire contains basic questions about your background information and it will take about 5 minutes to complete.
2) The General Ethnicity Questionnaire-American and Chinese versions (GEQA and GEQC) are about your culture attitude. This will take about 10 minutes to complete.
3) Family Adaptability and Cohesion Evaluation Scale IV (FACES IV) is about your perception of family. Your responses will be kept confidential. This will take about 10 minutes to complete.

Also, you will be asked to participate in a discussion with your family members participating in this study. The discussion will last 15 – 30 minutes and it will be videotaped. In the discussion, you and your family will be asked to discuss three questions:

1) Spending $1000 as a family,
2) Describe the family's activities at a significant festival.
3) The parents choose a Chinese proverb and all participating family members discuss what it means to them.

Two professional raters who are part of the research team will view the videotape. They will be keep the videotape in a secure and private location and will keep anything they observe on the videotape confidential. At the end of the study, the videotape will be kept under lock and key in a secure location at Drexel University for three years, and then it will be completely destroyed.

8. Risk and discomforts/constraints: Participation in the study may produce some anxiety. Ms. Duh, the student researcher, and Ms. Huo, the research adviser, are able to use both Chinese and English to communicate with your family members for decreasing any anxiety that you may experience. You and your family members may experience some discomfort during the videotaping session. There may be a risk of a disagreement or discord occurring during the family discussion part of the meeting. Therefore, Ms. Huo, the research adviser, who is qualify mental health therapist serving Asian families, will redirect the discussion if necessary for reducing the possibility of excessive discord among family members. To avoid embarrassment, the camera will be arranged in an obscure corner during the videotaping. In case that you have difficulties, you should let Ms. Duh or let Ms. Huo know. If you have any questions, you are free to ask Ms. Duh.

9. Unforeseen risks: Participation in the study may involve unforeseen risks. If unforeseen risks are seen, the Office of Research Compliance will be notified.

10. Benefits: There may be no direct benefits from participating in this study.

11. Alternative procedures: The alternative is not to participate in this study.

12. Reasons for removal from study: You may be required to stop the study before the end of any of the following reasons:
    a) If all or part the study is discontinued for any reason by the researchers or Drexel University authorities.

Subject's initials_____

b) If you fail to adhere to requirements for participation established by the researchers.

13. Voluntary Participation:
Volunteers: Participation in this study is voluntary, and you can refuse to be in the study or stop at any time. There will be no negative consequences if you decide not to participate or to stop.

14. Stipend/reimbursement: Your family will be given $30 gift card to Dunkin' Donuts after this study. If you are unable to complete this study, the family will not be given the gift card.

15. Responsibility for cost: Participation in this study will be of no cost to you or your family.

16. Confidentiality: In any publication or presentation of research results,
Your identity will be
kept confidential, but there is a possibility that records which identify you may be inspected by authorized individuals such as the institutional review boards (IRBs) or employees conducting peer review activities. You consent to such inspections and to the copying of excerpts of your records, if required by any of these representatives. The videotape will be kept in a locked office of the Hahnemann Creative Arts in Therapy Program, Center City Hahnemann Campus in Philadelphia, and only the primary investigator, the co-investigator, the two videotape raters, and the faculty advisor of this graduate student project will have access to it. After three years from the completion of the study, the videotape will be destroyed completely.

17. Other consideration: If you wish further information regarding your rights as a research subject or if you have problems with a research-related injury, for medical problems please contact the Institution's Office of Research Compliance by telephoning 215-255-7857.

Subject's initials_____

18. Consent:

- I have been informed of the reasons for this study.
- I have had the study explained to me.
- I have had all of my questions answered.
- I have carefully read this consent form, have initialed each page, and have received a signed copy.
- I give consent voluntarily.

_____ _____

Participant Date

_____ _____

Investigator or Individual Obtaining this consent Date

_____ _____

Witness to Signature Date

List of Individuals Authorized to obtain consent

Name	Title	Day Phone #	24 Hr Phone #
Sharon W. Goodill, Ph.D.	Primary Investigator	215-762-6926	215-762-6926
Sheau-Ling Duh, MS, RN	Student Researcher	215-275-7058	215-275-7058
Yan Q. Huo, MA, ATR-BC, LPC ,	Research Advisor,	267-242-6283	267-242-6283